Andrew Freistein 10/630896 05/24/2005

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NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	FEB 25	CA/CAPLUS - Russian Agency for Patents and Trademarks (ROSPATENT) added to list of core patent offices covered
NEWS	4	FEB 28	PATDPAFULL - New display fields provide for legal status data from INPADOC
NEWS	5	FEB 28	BABS - Current-awareness alerts (SDIs) available
NEWS	6	FEB 28	MEDLINE/LMEDLINE reloaded
NEWS	7	MAR 02	GBFULL: New full-text patent database on STN
NEWS	8	MAR 03	REGISTRY/ZREGISTRY - Sequence annotations enhanced
NEWS	9	MAR 03	MEDLINE file segment of TOXCENTER reloaded
NEWS	10	MAR 22	KOREAPAT now updated monthly; patent information enhanced
NEWS	11	MAR 22	Original IDE display format returns to REGISTRY/ZREGISTRY
NEWS	12	MAR 22	PATDPASPC - New patent database available
NEWS	13	MAR 22	REGISTRY/ZREGISTRY enhanced with experimental property tags
NEWS	14	APR 04	EPFULL enhanced with additional patent information and new fields
NEWS	15	APR 04	EMBASE - Database reloaded and enhanced
NEWS	16	APR 18	New CAS Information Use Policies available online
NEWS	17	APR 25	Patent searching, including current-awareness alerts (SDIs), based on application date in CA/CAplus and USPATFULL/USPAT2 may be affected by a change in filing date for U.S. applications.
NEWS	18	APR 28	Improved searching of U.S. Patent Classifications for U.S. patent records in CA/CAplus
NEWS	19	MAY 23	GBFULL enhanced with patent drawing images
NEWS	20	MAY 23	REGISTRY has been enhanced with source information from CHEMCATS

NEWS EXPRESS JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005

NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items
NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS WWW	CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 08:37:21 ON 24 MAY 2005

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 08:37:27 ON 24 MAY 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 23 MAY 2005 HIGHEST RN 850992-92-6
DICTIONARY FILE UPDATES: 23 MAY 2005 HIGHEST RN 850992-92-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

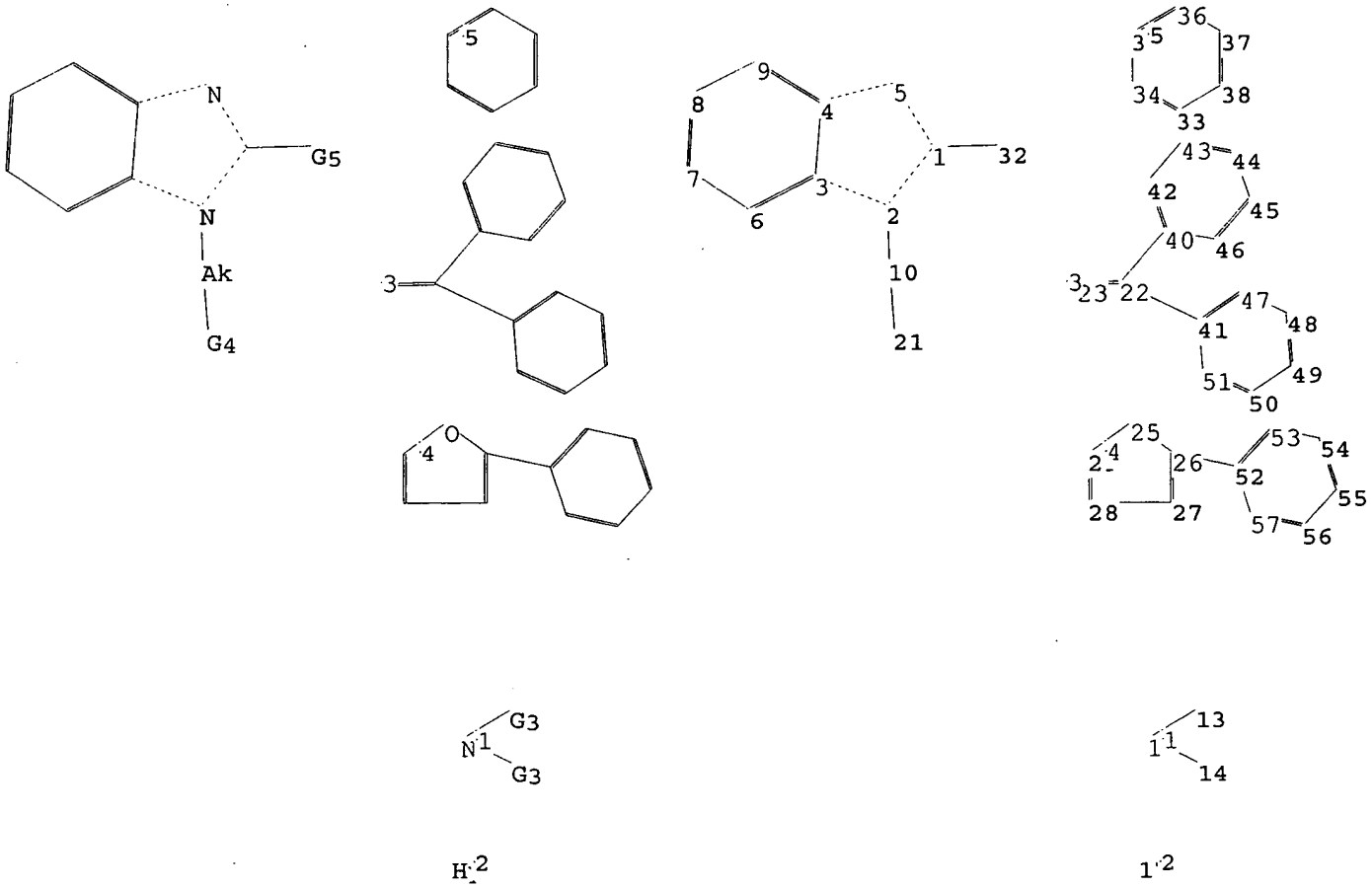
Please note that search-term pricing does apply when
conducting SmartSELECT searches.

****
* *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
* *
****

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=>
Uploading C:\Program Files\Stnexp\Queries\10630896\Q.str



H 2

1 2

---

chain nodes :
10 11 13 14 17 21 22 23 32
ring nodes :
1 2 3 4 5 6 7 8 9 25 26 27 28 29 33 34 35 36 37 38 40 41 42 43 44
45 46 47 48 49 50 51 52 53 54 55 56 57
chain bonds :
1-32 2-10 10-21 11-13 11-14 22-23 22-40 22-41 26-52
ring bonds :
1-2 1-5 2-3 3-4 3-6 4-5 4-9 6-7 7-8 8-9 25-26 25-29 26-27 27-28 28-29
33-34 33-38 34-35 35-36 36-37 37-38 40-42 40-46 41-47 41-51 42-43 43-44 44-45
45-46 47-48 48-49 49-50 50-51 52-53 52-57 53-54 54-55 55-56 56-57

```
exact/norm bonds :
1-2  1-5  1-32  2-3  2-10  4-5  10-21  11-13  11-14  25-26  25-29  26-27  27-28  28-29
exact bonds :
22-23  22-40  22-41  26-52
normalized bonds :
3-4  3-6  4-9  6-7  7-8  8-9  33-34  33-38  34-35  35-36  36-37  37-38  40-42  40-46
41-47  41-51  42-43  43-44  44-45  45-46  47-48  48-49  49-50  50-51  52-53  52-57  53-54
 54-55  55-56  56-57


G3:H,Cy,Ak

G4:[*1],[*2]

G5:[*3],[*4],[*5]

Match level :
1:Atom  2:Atom  3:Atom  4:Atom  5:Atom  6:Atom  7:Atom  8:Atom  9:Atom  10:CLASS
11:CLASS  13:CLASS  14:CLASS  17:Atom  21:CLASS  22:CLASS  23:CLASS  25:Atom  26:Atom
27:Atom  28:Atom  29:Atom  32:CLASS  33:CLASS  34:CLASS  35:Atom  36:Atom  37:Atom
38:Atom  40:Atom  41:Atom  42:Atom  43:Atom  44:Atom  45:Atom  46:Atom  47:Atom  48:Atom
49:Atom  50:Atom  51:Atom  52:Atom  53:Atom  54:Atom  55:Atom  56:Atom  57:Atom
Element Count :
Node 17: Limited
    N,N1




L1      STRUCTURE UPLOADED

=> d
L1 HAS NO ANSWERS
L1              STR
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

Structure attributes must be viewed using STN Express query preparation.


=> s l1
SAMPLE SEARCH INITIATED 08:38:01 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -   3100 TO ITERATE

 32.3% PROCESSED    1000 ITERATIONS                                50 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:        58661 TO    65339
PROJECTED ANSWERS:            3234 TO     4950

L2           50 SEA SSS SAM L1

=> s l1 full
FULL SEARCH INITIATED 08:38:11 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -  61175 TO ITERATE

100.0% PROCESSED   61175 ITERATIONS                          3913 ANSWERS
SEARCH TIME: 00.00.02
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L3 3913 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	161.76	161.97

FILE 'CAPLUS' ENTERED AT 08:38:28 ON 24 MAY 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907 - 24 May 2005 VOL 142 ISS 22
FILE LAST UPDATED: 23 May 2005 (20050523/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

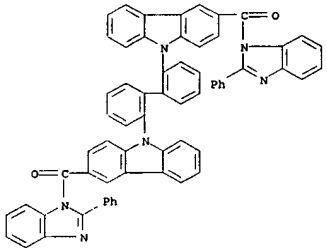
=> s l3
L4 142 L3

=> d ed ibib abs hitstr 1-142

L4 ANSWER 1 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 07 Apr 2005
ACCESSION NUMBER: 2005:297650 CAPLUS
DOCUMENT NUMBER: 142:363445
TITLE: Organic electroluminescent devices with high luminance and good stability on repetitive uses and materials therefor
INVENTOR(S): Onikubo, Shunichi; Enokida, Toshio; Suda, Yasumasa; Toba, Yasumasa; Kimura, Yasunori; Kaneko, Tetsuya
PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 37 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005089543	A2	20050407	JP 2003-322555	20030916
PRIORITY APPLN. INFO.:			JP 2003-322555	20030916

AB The materials contain condensed azacyclic compds. substituting, at the azacyclic ring, electron-withdrawing groups which contain double bonds and are not a part of other rings. The materials may further contain phosphorescent substances (e.g., Ir or Pt complexes). Organic LED having organic layers including one or more comprised of the materials are further claimed.
IT 849222-66-8
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(emitting layers; high-efficiency organic LED containing electron-withdrawing azacyclic compds. and phosphorescent compds.)
RN 849222-66-8 CAPLUS
CN INDEX NAME NOT YET ASSIGNED



L4 ANSWER 2 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 11 Feb 2005
ACCESSION NUMBER: 2005:120918 CAPLUS
DOCUMENT NUMBER: 142:219284
TITLE: A preparation of bicyclic imidazole derivatives, useful for the treatment of viral infections mediated by flaviviridae family of viruses
INVENTOR(S): Schmitz, Franz Ulrich; Roberts, Christopher Don; Griffith, Ronald Conrad; Botyanszki, Janos; Gezginci, Mikail Hakan; Gralapp, Joshua Michael; Shi, Dong Fang; Liehr, Sebastian J. R.
PATENT ASSIGNEE(S): Genelabs Technologies, Inc, USA
SOURCE: PCT Int. Appl., 327 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

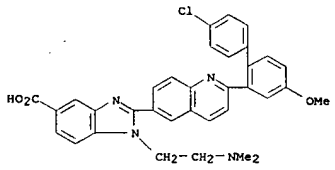
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005012288	A1	20050210	WO 2004-US24755	20040730
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:			US 2003-492108P	P 20030801

OTHER SOURCE(S): MARPAT 142:219284
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The invention relates to a preparation of bicyclic imidazole derivs. of formula I [wherein: W is CH or N; R is H, (cyclo)alkyl, alk(en/yn)yl, or (hetero)aryl, etc.; X is a fused 6,6-bicycle; Y is halogen, CN, NO2, alkyl, or acyl, etc.; Z is C(O)O-(H/alkyl/alk(en/yn)yl), C(O)NH(alkyl), or C(O)NH(aryl), etc.], useful for the treatment of viral infections mediated by flaviviridae family of viruses. For instance, benzimidazole derivative II (HCV-NS5b enzyme assay, inhibition data: at 100 μM - 98.22%, at 33 μM - 92.74%) was prepared via amidation of III by aminoacid IV with a yield of 32% (example 4).
IT 841298-92-8P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of bicyclic imidazole derivs. useful for the treatment of viral infections mediated by flaviviridae family of viruses)
RN 841298-92-8 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-[2-(4'-chloro-4-methoxy[1,1'-

L4 ANSWER 2 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
biphenyl]-2-yl)-6-quinolinyl]-1-[2-(dimethylamino)ethyl]- (9CI) (CA INDEX NAME)

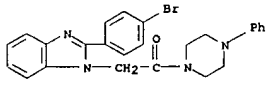


REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 05 Dec 2004
ACCESSION NUMBER: 2004:1038741 CAPLUS
TITLE: Synthesis and antihypertensive activity of novel benzimidazole, benzoxazole and benzothiazole derivatives
AUTHOR(S): Abouzid, Khaled; Refaat, Hanan; Hakeem, Maha Abdel; Abdel-Naim, Ashraf B.
CORPORATE SOURCE: Pharmaceutical Chemistry Department, Faculty of Pharmacy, Ain Shams University, Egypt
SOURCE: Bulletin of the Faculty of Pharmacy (Cairo University) (2002), 40(1), 7-13
CODEN: BFPHA8; ISSN: 1110-0931
PUBLISHER: Cairo University, Faculty of Pharmacy
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

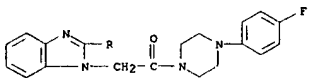
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

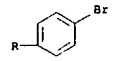
AB A series of novel 2-[2-(4-arylpiperazin-1-yl)-2-oxoethylthio]benzazoles [I (X = S, O, NH; R = H, F)], 2-[4-(6-oxo-1,4,5,6-tetrahydropyridazin-3-yl)phenylamino-2-(1-methyl)-2-oxoethylthio]benzothiazole, 2-[4-[(4-pyridin-2-yl)piperazin-1-yl]benzylidene]hydrazinobenzothiazole, 2-[4-(4-(pyridin-2-yl)piperazin-1-yl) phenyl]-1H-benzimidazole, 2-aryl-1-[2-(4-arylpiperazin-1-yl)-2-oxoethyl]-1-H-benzimidazoles [II (R2 = 4-BrC6H4 or 2-thienyl; R3 = Ph, 4-FC6H4, 2-pyrimidinyl)], and 5-[(4-N-substituted-piperazin-1-yl) carbonyl]-2-(4-fluorophenyl)-1H-benzimidazoles [III (R4 = Me, 2-CF3C6H4CH2CH2)] were synthesized and evaluated for hypotensive activity on normotensive cats. Preliminary screening demonstrated significant hypotensive effect for some of the tested compds. 2-[2-(4-(4-Fluorophenyl) piperazin-1-yl)-2-oxoethylthio] benzimidazole was found to be the most active hypotensive agent among the tested compds. It exhibited significant effect at dose level of 0.004 mg/kg.
IT 850705-32-7P 850705-33-8P 850705-34-9P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of benzimidazole, benzoxazole, and benzothiazole derivs. containing a piperazine moiety and evaluation of antihypertensive activity)
RN 850705-32-7 CAPLUS
CN INDEX NAME NOT YET ASSIGNED



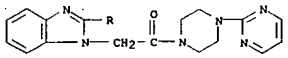
RN 850705-33-8 CAPLUS
CN INDEX NAME NOT YET ASSIGNED

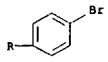
L4 ANSWER 3 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)





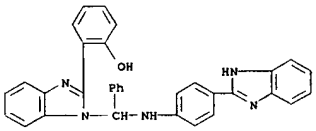
RN 850705-34-9 CAPLUS
CN INDEX NAME NOT YET ASSIGNED





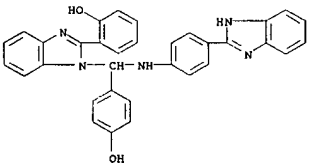
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 18 Nov 2004
ACCESSION NUMBER: 2004:988597 CAPLUS
DOCUMENT NUMBER: 142:411289
TITLE: Synthesis and characterization of benzimidazole derivatives and study of their antibacterial and antifungal activities
AUTHOR(S): Bhatt, Ashutosh K.; Shah, Palak R.; Karadia, Hasanali; Patel, H. D.
CORPORATE SOURCE: Chemistry Laboratory, Xavier Research Foundation, Ahmedabad, India
SOURCE: Oriental Journal of Chemistry (2004), 20(2), 385-388
CODEN: OJCHEG; ISSN: 0970-020X
PUBLISHER: Oriental Scientific Publishing Co.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Reaction of 2-(2-Hydroxyphenyl)-1H-benzimidazole with p-aminobenzoic acid and aromatic aldehydes in ethanol furnishes 1-(α-p-carboxyphenyl-aminobenzyl)-2-(2-hydroxyphenyl)benzimidazole. Which on treatment with o-phenylene diamine in pyridine results in the formation of 1-(α-p-benzimidazolyl-aminobenzyl)-2-(2-hydroxyphenyl)benzimidazole (I) in the varying from 60-65%. Antibacterial and antifungal activities of I were reported.
IT **850246-80-9P 850246-81-0P 850246-82-1P 850246-83-2P 850246-84-3P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of benzimidazole derivs. and their antibacterial and antifungal activities)
RN 850246-80-9 CAPLUS
CN Phenol, 2-[1-[[[4-(1H-benzimidazol-2-yl)phenyl]amino]phenylmethyl]-1H-benzimidazol-2-yl]- (9CI) (CA INDEX NAME)

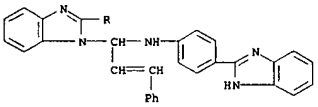


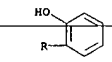
RN 850246-81-0 CAPLUS
CN INDEX NAME NOT YET ASSIGNED

L4 ANSWER 4 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

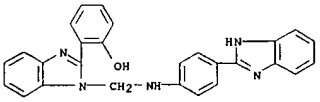


RN 850246-82-1 CAPLUS
CN Phenol, 2-[1-[1-[[4-(1H-benzimidazol-2-yl)phenyl]amino]-3-phenyl-2-propenyl]-1H-benzimidazol-2-yl]- (9CI) (CA INDEX NAME)



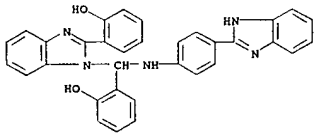


RN 850246-83-2 CAPLUS
CN Phenol, 2-[1-[[[4-(1H-benzimidazol-2-yl)phenyl]amino]methyl]-1H-benzimidazol-2-yl]- (9CI) (CA INDEX NAME)

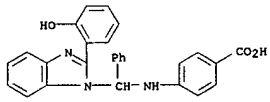


RN 850246-84-3 CAPLUS
CN INDEX NAME NOT YET ASSIGNED

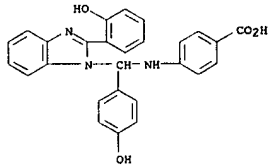
L4 ANSWER 4 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



IT **850246-75-2P 850246-76-3P 850246-77-4P 850246-78-5P 850246-79-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of benzimidazole derivs. and their antibacterial and antifungal activities)
RN 850246-75-2 CAPLUS
CN INDEX NAME NOT YET ASSIGNED

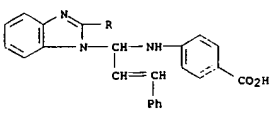


RN 850246-76-3 CAPLUS
CN INDEX NAME NOT YET ASSIGNED

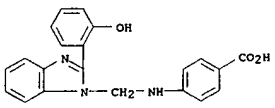


RN 850246-77-4 CAPLUS
CN INDEX NAME NOT YET ASSIGNED

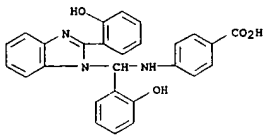
L4 ANSWER 4 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 850246-78-5 CAPLUS
CN INDEX NAME NOT YET ASSIGNED



RN 850246-79-6 CAPLUS
CN INDEX NAME NOT YET ASSIGNED



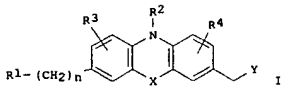
REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 04 Nov 2004
ACCESSION NUMBER: 2004:927078 CAPLUS
DOCUMENT NUMBER: 141:388755
TITLE: Preventive and/or therapeutic agent for neutrophil inflammation disease
INVENTOR(S): Saki, Mayumi; Nonaka, Hiromi; Miyaji, Hiromasa; Takahashi, Chisa; Manabe, Haruhiko; Hiura, Naoko; Miki, Ichiro; Abe, Yuzuru; Sasaki, Katsutoshi; Kobatake, Choei; Ichikawa, Shunji; Goto, Akihisa; Suda, Toshio
PATENT ASSIGNEE(S): Kyowa Hakko Kogyo Co. Ltd., Japan
SOURCE: PCT Int. Appl., 203 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

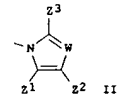
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004093912	A1	20041104	WO 2004-JP5930	20040423

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: JP 2003-118432 A 20030423
JP 2004-52191 A 20040226
OTHER SOURCE(S): MARPAT 141:388755
GI

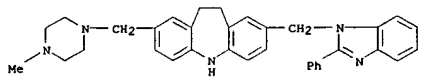


I

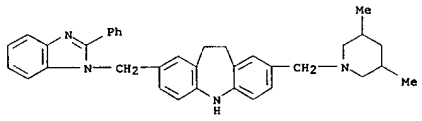


II

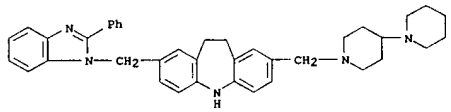
L4 ANSWER 5 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
AB Preventive and/or therapeutic drugs for itch containing as the active ingredient substances capable of suppressing the functions of GPR4 relating to signal transduction; and nitrogen-containing tricyclic compds. represented by the general formula I (R1 is substituted or unsubstituted lower alkyl or the like; R2 is hydrogen, substituted or unsubstituted lower alkyl, or the like; R3 and R4 are each independently hydrogen, lower alkyl, or the like; n is 0 or 1; X = -(CH2)2- or the like; and Y = a group represented by the general formula II wherein W is CH or nitrogen; Z1 and Z2 are each independently hydrogen, substituted or unsubstituted lower alkyl, or the like; and Z3 is hydrogen, substituted or unsubstituted lower alkyl, or the like), quaternary ammonium salts thereof, or pharmacol. acceptable salts of both.
IT **666717-31-3P 666717-32-4P 666717-33-5P**
666717-34-6P 666717-35-7P 666717-37-9P
666717-38-0P 666717-39-1P 666717-40-4P
666717-41-5P 666717-42-6P 666717-43-7P
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preventive and/or therapeutic drugs for itch)
RN 666717-31-3 CAPLUS
CN 5H-Dibenz[b,f]azepine, 10,11-dihydro-2-[(4-methyl-1-piperazinyl)methyl]-8-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 5 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

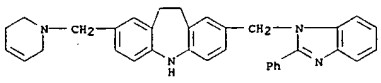


RN 666717-35-7 CAPLUS
CN 5H-Dibenz[b,f]azepine, 2-([1,4'-bipiperidin]-1'-ylmethyl)-10,11-dihydro-8-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

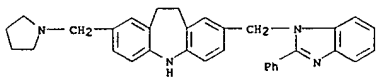


RN 666717-37-9 CAPLUS
CN 5H-Dibenz[b,f]azepine, 10,11-dihydro-2-[(2-phenyl-1H-benzimidazol-1-yl)methyl]-8-[[4-(phenylmethyl)-1-piperidinyl]methyl]- (9CI) (CA INDEX NAME)

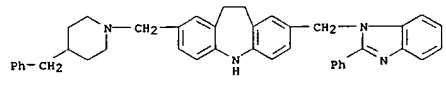
RN 666717-32-4 CAPLUS
CN 5H-Dibenz[b,f]azepine, 2-[(3,6-dihydro-1(2H)-pyridinyl)methyl]-10,11-dihydro-8-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)



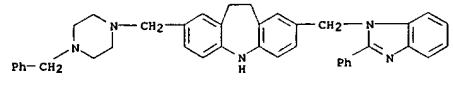
RN 666717-33-5 CAPLUS
CN 5H-Dibenz[b,f]azepine, 10,11-dihydro-2-[(2-phenyl-1H-benzimidazol-1-yl)methyl]-8-(1-pyrrolidinylmethyl)- (9CI) (CA INDEX NAME)



RN 666717-34-6 CAPLUS
CN 5H-Dibenz[b,f]azepine, 2-[(3,5-dimethyl-1-piperidinyl)methyl]-10,11-dihydro-8-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

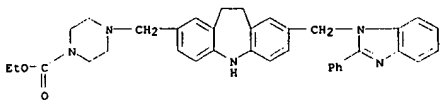


RN 666717-38-0 CAPLUS
CN 5H-Dibenz[b,f]azepine, 10,11-dihydro-2-[(2-phenyl-1H-benzimidazol-1-yl)methyl]-8-[[4-(phenylmethyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)

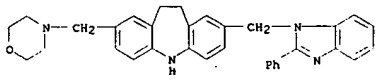


RN 666717-39-1 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[10,11-dihydro-8-[(2-phenyl-1H-benzimidazol-1-yl)methyl]-5H-dibenz[b,f]azepin-2-yl]methyl]-, ethyl ester (9CI) (CA INDEX NAME)

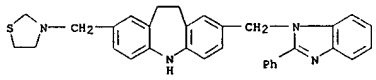
L4 ANSWER 5 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



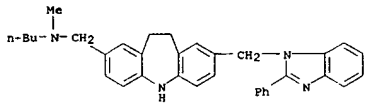
RN 666717-40-4 CAPLUS
CN 5H-Dibenz[b,f]azepine, 10,11-dihydro-2-(4-morpholinylmethyl)-8-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)



RN 666717-41-5 CAPLUS
CN 5H-Dibenz[b,f]azepine, 10,11-dihydro-2-[(2-phenyl-1H-benzimidazol-1-yl)methyl]-8-(3-thiazolidinylmethyl)- (9CI) (CA INDEX NAME)

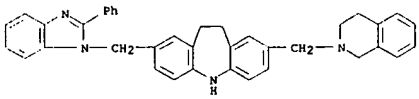


RN 666717-42-6 CAPLUS
CN 5H-Dibenz[b,f]azepine-2-methanamine, N-butyl-10,11-dihydro-N-methyl-8-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)



RN 666717-43-7 CAPLUS
CN 5H-Dibenz[b,f]azepine, 2-[(3,4-dihydro-2(1H)-isoquinolinyl)methyl]-10,11-dihydro-8-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 5 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



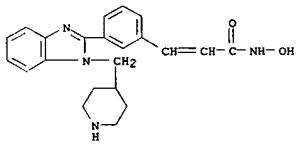
REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 30 Sep 2004
ACCESSION NUMBER: 2004:799454 CAPLUS
DOCUMENT NUMBER: 141:291229
TITLE: Histone deacetylase inhibitors
INVENTOR(S): Bressi, Jerome C.; Brown, Jason W.; Cao, Sheldon X.; Gangloff, Anthony R.; Jennings, Andrew J.; Stafford, Jeffrey A.; Vu, Phong H.; Xiao, Xiao-Yi
PATENT ASSIGNEE(S): Syrrx, Inc., USA
SOURCE: PCT Int. Appl., 276 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

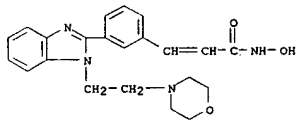
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004082638	A2	20040930	WO 2004-US8342	20040317
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004254220	A1	20041216	US 2004-803575	20040317
US 2004266769	A1	20041230	US 2004-803344	20040317
PRIORITY APPLN. INFO.:			US 2003-455437P	P 20030317
			US 2003-531203P	P 20031219

OTHER SOURCE(S): MARPAT 141:291229
AB Compds. that may be used to inhibit histone deacetylase are disclosed. Thus, 119 compds. were prepared which exhibited better than 1000 nM IC50 against HDAC1, HDAC2, HDAC6, and HDAC8 (suberanilohydroxamic acid showed an IC50 of 63 nM in this assay). Many of these compds. were 3-[3-(1-substituted-1H-benzoimidazol-2-yl)phenyl]acrylic acids and N-hydroxy-[3-(1-substituted-1H-benzoimidazol-2-yl)phenyl]acrylamides.
IT **758693-32-2 758693-33-3 758693-65-1**
758693-66-2 758693-67-3 758693-68-4
758693-91-3 758693-97-9 758694-01-8
758694-03-0 758694-04-1 758694-05-2
758694-25-6
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(histone deacetylase inhibitors)
RN 758693-32-2 CAPLUS
CN 2-Propenamide, N-hydroxy-3-[3-[1-(4-piperidinylmethyl)-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)

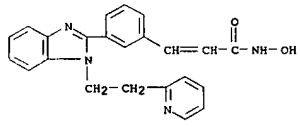
L4 ANSWER 6 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



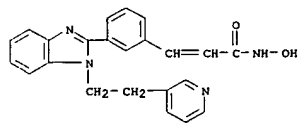
RN 758693-33-3 CAPLUS
CN 2-Propenamide, N-hydroxy-3-[3-[1-[2-(4-morpholinyl)ethyl]-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)



RN 758693-65-1 CAPLUS
CN 2-Propenamide, N-hydroxy-3-[3-[1-[2-(2-pyridinyl)ethyl]-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)

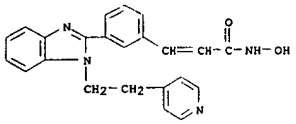


RN 758693-66-2 CAPLUS
CN 2-Propenamide, N-hydroxy-3-[3-[1-[2-(3-pyridinyl)ethyl]-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)

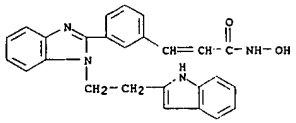


RN 758693-67-3 CAPLUS

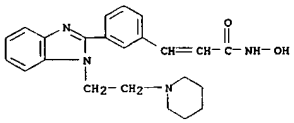
L4 ANSWER 6 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CN 2-Propenamide, N-hydroxy-3-[3-[1-[2-(4-pyridinyl)ethyl]-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)



RN 758693-68-4 CAPLUS
CN 2-Propenamide, N-hydroxy-3-[3-[1-[2-(1H-indol-2-yl)ethyl]-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)

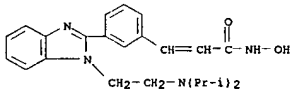


RN 758693-91-3 CAPLUS
CN 2-Propenamide, N-hydroxy-3-[3-[1-[2-(1-piperidinyl)ethyl]-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)

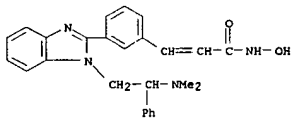


RN 758693-97-9 CAPLUS
CN 2-Propenamide, 3-[3-[1-[2-(diethylamino)ethyl]-1H-benzimidazol-2-yl]phenyl]-N-hydroxy- (9CI) (CA INDEX NAME)

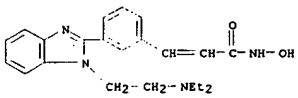
L4 ANSWER 6 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



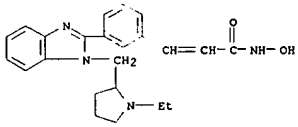
RN 758694-25-6 CAPLUS
CN 2-Propenamide, 3-[3-[1-[2-(dimethylamino)-2-phenylethyl]-1H-benzimidazol-2-yl]phenyl]-N-hydroxy- (9CI) (CA INDEX NAME)



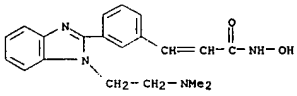
L4 ANSWER 6 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



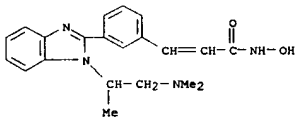
RN 758694-01-8 CAPLUS
CN 2-Propenamide, 3-[3-[1-[(1-ethyl-2-pyrrolidinyl)methyl]-1H-benzimidazol-2-yl]phenyl]-N-hydroxy- (9CI) (CA INDEX NAME)



RN 758694-03-0 CAPLUS
CN 2-Propenamide, 3-[3-[1-[2-(dimethylamino)ethyl]-1H-benzimidazol-2-yl]phenyl]-N-hydroxy- (9CI) (CA INDEX NAME)



RN 758694-04-1 CAPLUS
CN 2-Propenamide, 3-[3-[1-[2-(dimethylamino)-1-methylethyl]-1H-benzimidazol-2-yl]phenyl]-N-hydroxy- (9CI) (CA INDEX NAME)



RN 758694-05-2 CAPLUS
CN 2-Propenamide, 3-[3-[1-[2-[bis(1-methylethyl)amino]ethyl]-1H-benzimidazol-2-yl]phenyl]-N-hydroxy- (9CI) (CA INDEX NAME)

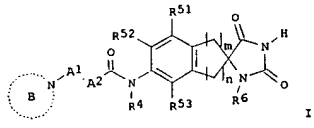
L4 ANSWER 7 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 30 Sep 2004
ACCESSION NUMBER: 2004:799443 CAPLUS
DOCUMENT NUMBER: 141:314324
TITLE: Preparation of bicyclic anilide spirohydantoin CGRP receptor antagonists
INVENTOR(S): Bell, Ian M.; Gallicchio, Steven N.; Theberge, Cory R.; Zhang, Xu-Fang; Stump, Craig; Zartman, C. Blair
PATENT ASSIGNEE(S): Merck & Co. Inc., USA
SOURCE: PCT Int. Appl., 120 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004082605	A2	20040930	WO 2004-US7289	20040310
WO 2004082605	A3	20041118		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-455609P P 20030314
US 2003-486642P P 20030711

OTHER SOURCE(S): MARPAT 141:314324
GI



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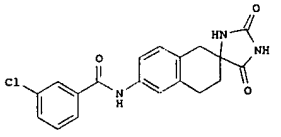
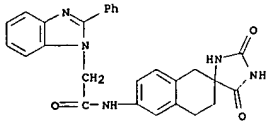
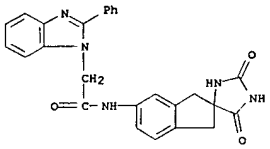


II

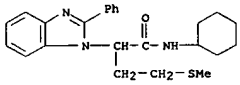
L4 ANSWER 7 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
AB The title compds. [I; B = (un)substituted bicycloheterocycle; A1, A2 = a bond, (un)substituted CH2; R4 = H, alkyl, fluoroalkyl, cycloalkyl, etc.; R51, R52, R53 = H, alkyl, alkoxy, etc.; R6 = H, alkyl, cycloalkyl, etc.; m, n = 1-2] that are antagonists of CGRP receptors and that are useful in the treatment or prevention of diseases in which the CGRP is involved, such as headache, migraine and cluster headache, were prepared E.g., a multi-step synthesis of II, starting from 6-bromo-2-tetralone, was given. The exemplified compds. I had activity as antagonists of the CGRP receptor, generally with a Ki or IC50 value of <50μM. The invention is also directed to pharmaceutical comprns. comprising the compds. I and the use of these compds. and comprns. in the prevention or treatment of such diseases in which CGRP is involved.
IT **767303-85-5P 767304-06-3P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of bicyclic anilide spirohydantoin CGRP receptor antagonists)
RN 767303-85-5 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(3',4'-dihydro-2,5-dioxospiro[imidazolidine-4,2'(1'H)-naphthalen]-6'-yl)-2-phenyl- (9CI) (CA INDEX NAME)



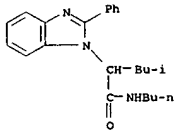
RN 767304-06-3 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(1',3'-dihydro-2,5-dioxospiro[imidazolidine-4,2'-[2H]inden]-5'-yl)-2-phenyl- (9CI) (CA INDEX NAME)



L4 ANSWER 8 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 17 Aug 2004
ACCESSION NUMBER: 2004:668307 CAPLUS
DOCUMENT NUMBER: 141:332161
TITLE: Highly efficient microwave-assisted fluorous Ugi and post-condensation reactions for benzimidazoles and quinoxalinones
AUTHOR(S): Zhang, Wei; Tempest, Paul
CORPORATE SOURCE: Fluorous Technologies, Inc., University of Pittsburgh Applied Research Center, Pittsburgh, PA, 15238, USA
SOURCE: Tetrahedron Letters (2004), 45(36), 6757-6760
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The efficiency of an Ugi/de-Boc/cyclization strategy for construction of heterocyclic compds. has been improved through the incorporation of microwave and fluorous technologies. In the synthesis of substituted quinoxalinones and benzimidazoles, a fluorous-Boc protected diamine is employed for the Ugi reactions. Both the Ugi and the post-condensation reaction proceed rapidly under microwave irradiation and the reaction mixts. are purified by solid-phase extraction (SPE) over FluoroFlash cartridges.
IT **371158-44-0P 773856-85-2P 773856-86-3P**
773856-87-4P 773856-88-5P 773856-89-6P
773856-90-9P 773856-91-0P 773856-92-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of benzimidazoles and quinoxalinones via microwave-assisted fluorous Ugi/de-Boc/cyclization strategy)
RN 371158-44-0 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-cyclohexyl-α-[2-(methylthio)ethyl]-2-phenyl- (9CI) (CA INDEX NAME)

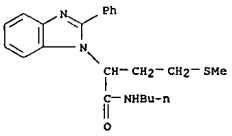


RN 773856-85-2 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-butyl-α-(2-methylpropyl)-2-phenyl- (9CI) (CA INDEX NAME)

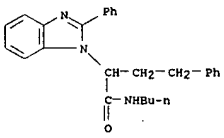


RN 773856-86-3 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-butyl-α-[2-(methylthio)ethyl]-2-

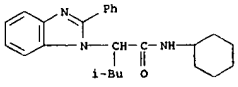
L4 ANSWER 8 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
phenyl- (9CI) (CA INDEX NAME)



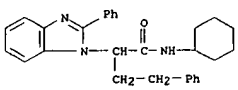
RN 773856-87-4 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-butyl-2-phenyl-α-(2-phenylethyl)- (9CI) (CA INDEX NAME)



RN 773856-88-5 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-cyclohexyl-α-(2-methylpropyl)-2-phenyl- (9CI) (CA INDEX NAME)

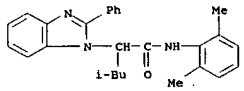


RN 773856-89-6 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-cyclohexyl-2-phenyl-α-(2-phenylethyl)- (9CI) (CA INDEX NAME)

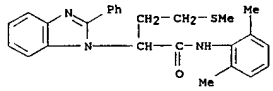


RN 773856-90-9 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2,6-dimethylphenyl)-α-(2-methylpropyl)-2-phenyl- (9CI) (CA INDEX NAME)

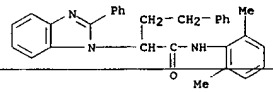
L4 ANSWER 8 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 773856-91-0 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2,6-dimethylphenyl)-α-(2-(methylthio)ethyl]-2-phenyl- (9CI) (CA INDEX NAME)



RN 773856-92-1 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2,6-dimethylphenyl)-2-phenyl-α-(2-phenylethyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 01 Jul 2004
ACCESSION NUMBER: 2004:525589 CAPLUS
DOCUMENT NUMBER: 141:292113
TITLE: Antimicrobial activity of some thiadiazolyl- and triazolylbenzimidazoles
AUTHOR(S): Kus, Canan; Ayhan-Kilcigil, Guelguen; Altanlar, Nurten
CORPORATE SOURCE: Faculty of Pharmacy, Department of Pharmaceutical Chemistry, Ankara University, Tandogan-Ankara, 06100, Turk.
SOURCE: Ankara Universitesi Eczacilik Fakultesi Dergisi (2004), 33(1), 1-6
CODEN: AUEDE5; ISSN: 1015-3918
PUBLISHER: Ankara Universitesi Eczacilik Fakultesi
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB In this study, thirty nine benzimidazole derivs. namely 1-[(substituted thiocarbamoylhydrazine carbonyl)methyl]-2-phenyl-1H-benzimidazoles, N-[(2-phenylbenzimidazol-1-ylmethyl)-[1.3.4]thiadiazole-2-yl]-substituted Ph amines, and 5-(2-phenylbenzimidazol-1-ylmethyl)-4-substituted phenyl-4H-1,2,4-triazole-3-thiones were screened for their antimicrobial activities. Min. Inhibitory Concentration (MIC) values of the compds. were determined by the tube dilution method using Staphylococcus aureus and Bacillus subtilis as gram-pos., Escherichia coli as gram-neg. bacteria and Candida albicans, Candida krusei and Candida parapsilosis as yeast-like fungi. All of the compds. were inactive against S. aureus, C. krusei and C. parapsilosis. Compds. I, II, and III (12.5 μg/mL) showed good inhibitory activity against C. albicans.

IT 755010-60-7 755010-62-9 755010-64-1
755010-66-3 755010-68-5 755010-70-9
755010-72-1 755010-74-3 755010-76-5
755010-78-7 755010-80-1 755010-82-3
755010-84-5 755010-86-7 755010-88-9
755010-90-3 755010-92-5 755010-94-7
755010-96-9 755010-98-1 755011-00-8
755011-02-0 755011-04-2 755011-06-4
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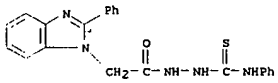
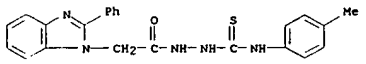
755011-14-4 755011-16-6 755011-18-8
755011-20-2 755011-22-4 755011-24-6
755011-26-8 755011-28-0 755011-30-4
755011-32-6 755011-34-8 755011-36-0
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antimicrobial activity of some thiadiazolyl- and triazolylbenzimidazoles)

RN 755010-60-7 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-phenyl-, 2-[(phenylamino)thioxomethyl]hydrazide (9CI) (CA INDEX NAME)

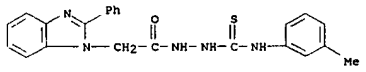
L4 ANSWER 9 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



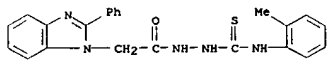
RN 755010-62-9 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-phenyl-, 2-[[(4-methylphenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)



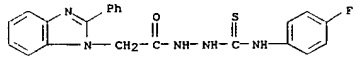
RN 755010-64-1 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-phenyl-, 2-[[(3-methylphenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)



RN 755010-66-3 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-phenyl-, 2-[[(2-methylphenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)

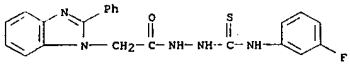


RN 755010-68-5 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-phenyl-, 2-[[(4-fluorophenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)

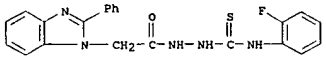


RN 755010-70-9 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-phenyl-, 2-[[(3-fluorophenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)

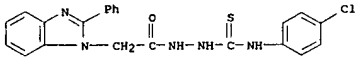
L4 ANSWER 9 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



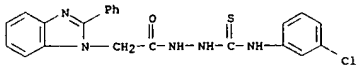
RN 755010-72-1 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-phenyl-, 2-[[(2-fluorophenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)



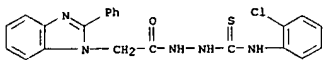
RN 755010-74-3 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-phenyl-, 2-[[(4-chlorophenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)



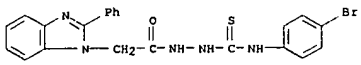
RN 755010-76-5 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-phenyl-, 2-[[(3-chlorophenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)



RN 755010-78-7 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-phenyl-, 2-[[(2-chlorophenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)

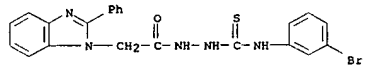


RN 755010-80-1 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-phenyl-, 2-[[(4-bromophenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)

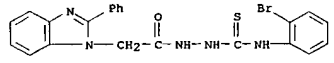


L4 ANSWER 9 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

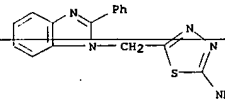
RN 755010-82-3 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-phenyl-, 2-[[(3-bromophenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)



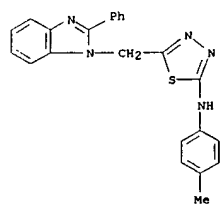
RN 755010-84-5 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-phenyl-, 2-[[(2-bromophenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)



RN 755010-86-7 CAPLUS
CN 1,3,4-Thiadiazol-2-amine, N-phenyl-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

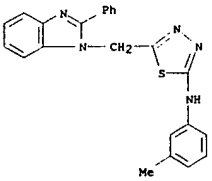


RN 755010-88-9 CAPLUS
CN 1,3,4-Thiadiazol-2-amine, N-(4-methylphenyl)-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

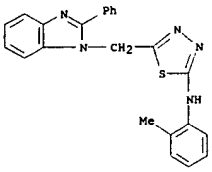


RN 755010-90-3 CAPLUS
CN 1,3,4-Thiadiazol-2-amine, N-(3-methylphenyl)-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

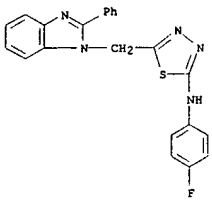
L4 ANSWER 9 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 755010-92-5 CAPLUS
CN 1,3,4-Thiadiazol-2-amine, N-(2-methylphenyl)-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

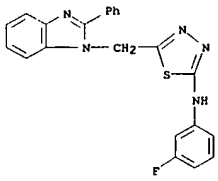


RN 755010-94-7 CAPLUS
CN 1,3,4-Thiadiazol-2-amine, N-(4-fluorophenyl)-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

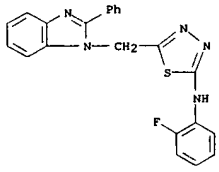


RN 755010-96-9 CAPLUS

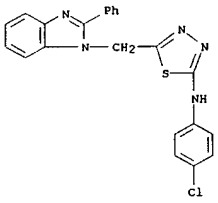
L4 ANSWER 9 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CN 1,3,4-Thiadiazol-2-amine, N-(3-fluorophenyl)-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)



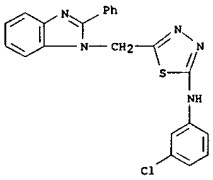
RN 755010-98-1 CAPLUS
CN 1,3,4-Thiadiazol-2-amine, N-(2-fluorophenyl)-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)



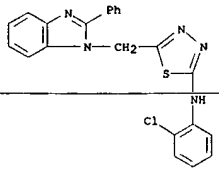
RN 755011-00-8 CAPLUS
CN 1,3,4-Thiadiazol-2-amine, N-(4-chlorophenyl)-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)



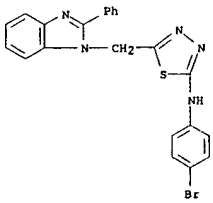
L4 ANSWER 9 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
RN 755011-02-0 CAPLUS
CN 1,3,4-Thiadiazol-2-amine, N-(3-chlorophenyl)-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)



RN 755011-04-2 CAPLUS
CN 1,3,4-Thiadiazol-2-amine, N-(2-chlorophenyl)-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

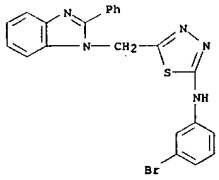


RN 755011-06-4 CAPLUS
CN 1,3,4-Thiadiazol-2-amine, N-(4-bromophenyl)-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

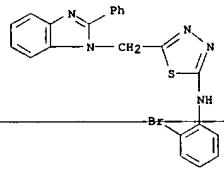


RN 755011-08-6 CAPLUS
CN 1,3,4-Thiadiazol-2-amine, N-(3-bromophenyl)-5-[(2-phenyl-1H-benzimidazol-1-

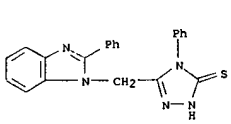
L4 ANSWER 9 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
yl)methyl]- (9CI) (CA INDEX NAME)



RN 755011-10-0 CAPLUS
CN 1,3,4-Thiadiazol-2-amine, N-(2-bromophenyl)-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

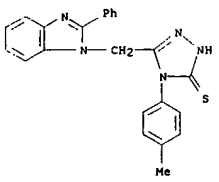


RN 755011-12-2 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 2,4-dihydro-4-phenyl-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

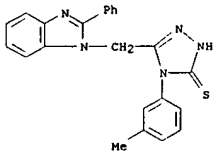


RN 755011-14-4 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 2,4-dihydro-4-(4-methylphenyl)-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

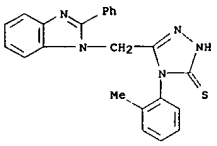
L4 ANSWER 9 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



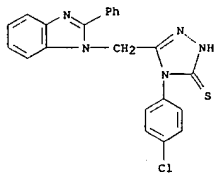
RN 755011-16-6 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 2,4-dihydro-4-(3-methylphenyl)-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)



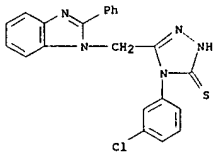
RN 755011-18-8 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 2,4-dihydro-4-(2-methylphenyl)-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)



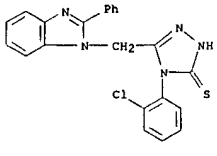
RN 755011-20-2 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 4-(4-fluorophenyl)-2,4-dihydro-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)



RN 755011-28-0 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 4-(3-chlorophenyl)-2,4-dihydro-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

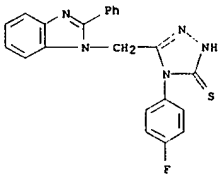


RN 755011-30-4 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 4-(2-chlorophenyl)-2,4-dihydro-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

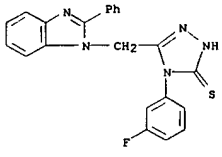


RN 755011-32-6 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 4-(4-bromophenyl)-2,4-dihydro-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

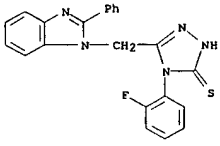
L4 ANSWER 9 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 755011-22-4 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 4-(3-fluorophenyl)-2,4-dihydro-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

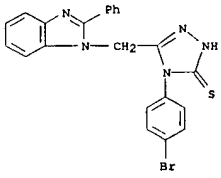


RN 755011-24-6 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 4-(2-fluorophenyl)-2,4-dihydro-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

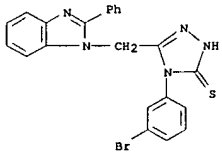


RN 755011-26-8 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 4-(4-chlorophenyl)-2,4-dihydro-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

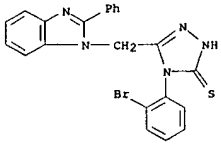
L4 ANSWER 9 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 755011-34-8 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 4-(3-bromophenyl)-2,4-dihydro-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)



RN 755011-36-0 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 4-(2-bromophenyl)-2,4-dihydro-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

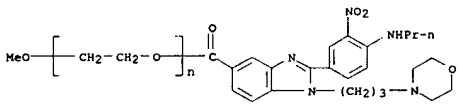
L4 ANSWER 10 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 17 Jun 2004
ACCESSION NUMBER: 2004:487927 CAPLUS
DOCUMENT NUMBER: 141:424144
TITLE: Combinatorial synthesis of biheterocyclic benzimidazoles by microwave irradiation
AUTHOR(S): Yeh, Wen-Bing; Lin, Mei-Jung; Sun, Chung-Ming
CORPORATE SOURCE: Laboratory of Combinatorial Drug Design, National Tong Hwa University, Hualien, 974, Taiwan
SOURCE: Combinatorial Chemistry and High Throughput Screening (2004), 7(3), 251-255
CODEN: CCHSFU; ISSN: 1386-2073
PUBLISHER: Bentham Science Publishers Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Liquid phase synthesis of biheterocyclic benzimidazoles, e.g., I, by controlled microwave irradiation was investigated. Polymer immobilized o-phenylenediamines was synthesized under microwave irradiation The resulting PEG bound diamines was N-acylated with 4-fluoro-3-nitrobenzoic acid selectively in primary aromatic amino moiety. Nucleophilic aromatic substitution of amide was performed with various amines then cyclized to form the first benzimidazole scaffold, e.g., II (X = PEG), in acidic condition. Successive reduction, cyclization with isothiocyanates yielded 5-(benzimidazol-2-yl)benzimidazoles. The desired products were released from the polymer support to afford the tri-substituted bis-benzimidazoles in good yields and purity.

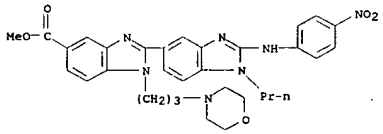
IT **796841-01-5P 796841-02-6P 796841-09-3P 796841-10-6P**
RL: CPN (Combinatorial preparation); CRT (Combinatorial reactant); RCT (Reactant); CMBI (Combinatorial study); PREP (Preparation); RACT (Reactant or reagent)
(preparation of PEG-bound benzimidazolylphenylenediamines as biheterocyclic benzimidazole precursor via TFA-catalyzed cyclocondensation of PEG-bound (phenylenediaminecarbonyl)nitroanilines followed by nitro-reduction with zinc)

RN 796841-01-5 CAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[[1-[(4-morpholinyl)propyl]-2-(3-nitro-4-(propylamino)phenyl]-1H-benzimidazol-5-yl]carbonyl]-ω-methoxy- (9CI) (CA INDEX NAME)

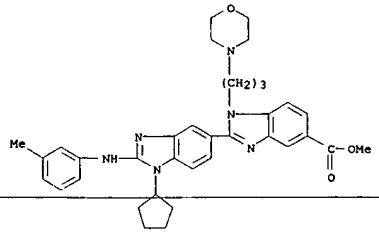


RN 796841-02-6 CAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[[2-[4-(cyclopentylamino)-3-nitrophenyl]-

L4 ANSWER 10 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



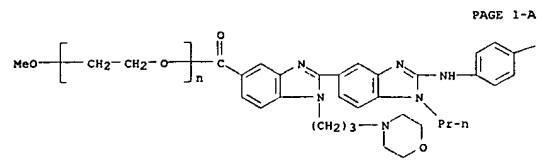
RN 796841-34-4 CAPLUS
CN [2,5'-Bi-1H-benzimidazole]-5-carboxylic acid, 1'-cyclopentyl-2'-[(3-methylphenyl)amino]-1-[3-(4-morpholinyl)propyl]-, methyl ester (9CI) (CA INDEX NAME)



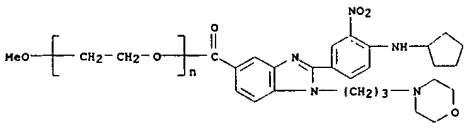
IT **796841-20-8P 796841-21-9P**
RL: CPN (Combinatorial preparation); CRT (Combinatorial reactant); RCT (Reactant); CMBI (Combinatorial study); PREP (Preparation); RACT (Reactant or reagent)
(preparation of biheterocyclic benzimidazoles via cyclization of PEG-bound benzimidazolylphenylenediamines with isothiocyanates followed by PEG cleavage with sodium methoxide)

RN 796841-20-8 CAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[[1-[3-(4-morpholinyl)propyl]-2'-[(4-nitrophenyl)amino]-1'-propyl[2,5'-bi-1H-benzimidazol]-5-yl]carbonyl]-ω-methoxy- (9CI) (CA INDEX NAME)

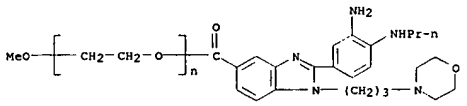
PAGE 1-A



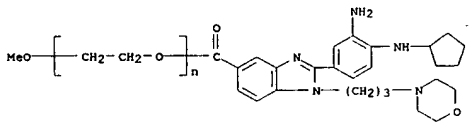
L4 ANSWER 10 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
1-[(4-morpholinyl)propyl]-1H-benzimidazol-5-yl]carbonyl]-ω-methoxy- (9CI) (CA INDEX NAME)



RN 796841-09-3 CAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[[2-[3-amino-4-(propylamino)phenyl]-1-[3-(4-morpholino)propyl]-1H-benzimidazol-5-yl]carbonyl]-ω-methoxy- (9CI) (CA INDEX NAME)



RN 796841-10-6 CAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[[2-[3-amino-4-(cyclopentylamino)phenyl]-1-[3-(4-morpholinyl)propyl]-1H-benzimidazol-5-yl]carbonyl]-ω-methoxy- (9CI) (CA INDEX NAME)



IT **796841-33-3P 796841-34-4P**
RL: CPN (Combinatorial preparation); CMBI (Combinatorial study); PREP (Preparation)
(preparation of biheterocyclic benzimidazoles via cyclization of PEG-bound benzimidazolylphenylenediamines with isothiocyanates followed by PEG cleavage with sodium methoxide)

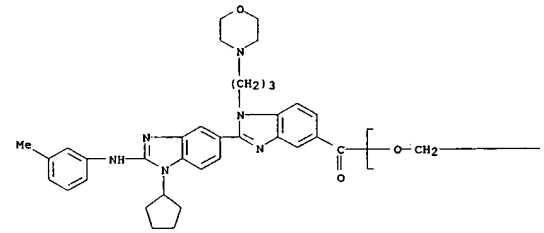
RN 796841-33-3 CAPLUS
CN [2,5'-Bi-1H-benzimidazole]-5-carboxylic acid, 1-[3-(4-morpholinyl)propyl]-2'-[(4-nitrophenyl)amino]-1'-propyl-, methyl ester (9CI) (CA INDEX NAME)

L4 ANSWER 10 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

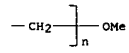
PAGE 1-B

RN 796841-21-9 CAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[[1'-cyclopentyl-2'-[(3-methylphenyl)amino]-1-[3-(4-morpholinyl)propyl][2,5'-bi-1H-benzimidazol]-5-yl]carbonyl]-ω-methoxy- (9CI) (CA INDEX NAME)

PAGE 1-A

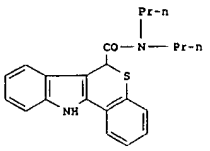


PAGE 1-B



REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 11 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 10 Jun 2004
ACCESSION NUMBER: 2004:469777 CAPLUS
DOCUMENT NUMBER: 141:167216
TITLE: Design, synthesis, and structure-activity relationships of novel tetracyclic compounds as peripheral benzodiazepine receptor ligands
AUTHOR(S): Okubo, Taketoshi; Yoshikawa, Ryoko; Chaki, Shigeyuki; Okuyama, Shigeru; Nakazato, Atsuro
CORPORATE SOURCE: Medicinal Chemistry Laboratory, Medicinal Research Laboratories, Taisho Pharmaceutical Co., Ltd, 1-403 Yoshino-cho, Kita-ku, Saitama-shi, Saitama, 331-9530, Japan
SOURCE: Bioorganic & Medicinal Chemistry (2004), 12(13), 3569-3580
CODEN: BMECEP; ISSN: 0968-0896
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



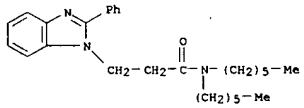
I

AB The peripheral benzodiazepine receptor (PBR) is pharmacol. distinct from the central benzodiazepine receptor (CBR) and has been identified in a wide range of peripheral tissues as well as in the central nervous system. Although numerous studies have been performed of it, the physiol. roles and functions of the PBR are still unclear. In the present study, in exploring new types of ligands for PBR, the authors found that a new series of compds. having a tetracyclic ring system, which were designed from FGIN-1-27, exhibited high affinities for PBR. The authors prepared and evaluated them for PBR affinities. The results of binding tests showed that two compds. were potent PBR ligands, one (I) having an IC50=0.37 nM. In this paper, the authors present the design, synthesis, and structure-activity relationships (SARs) of novel tetracyclic compds.

IT **736161-60-7P 736161-75-4P 736161-76-5P**
RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(design, synthesis, and structure-activity relationships of novel tetracyclic compds. as peripheral benzodiazepine receptor ligands)

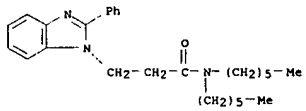
RN 736161-60-7 CAPLUS
CN 1H-Benzimidazole-1-propanamide, N,N-dihexyl-2-phenyl-, monohydrochloride (9CI) (CA INDEX NAME)

L4 ANSWER 11 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



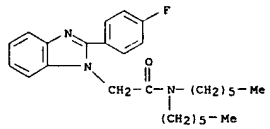
REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 11 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

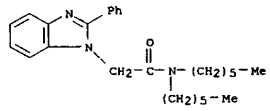


● HCl

RN 736161-75-4 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(4-fluorophenyl)-N,N-dihexyl- (9CI) (CA INDEX NAME)



RN 736161-76-5 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N,N-dihexyl-2-phenyl- (9CI) (CA INDEX NAME)



IT **770709-79-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(design, synthesis, and structure-activity relationships of novel tetracyclic compds. as peripheral benzodiazepine receptor ligands)

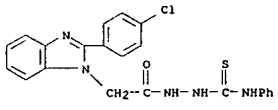
RN 770709-79-0 CAPLUS
CN 1H-Benzimidazole-1-propanamide, N,N-dihexyl-2-phenyl- (9CI) (CA INDEX NAME)

L4 ANSWER 12 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 14 May 2004
ACCESSION NUMBER: 2004:392964 CAPLUS
DOCUMENT NUMBER: 141:46768
TITLE: Synthesis and Antioxidant Properties of Novel Benzimidazole Derivatives
AUTHOR(S): Ayhan-Kilcigil, Guelguen; Kus, Canan; Coban, Tuelay; Can-Eke, Benay; Iscan, Mumtaz
CORPORATE SOURCE: Department of Pharmaceutical Chemistry, Faculty of Pharmacy, Ankara University, Tandogan, Ankara, 06100, Turk.
SOURCE: Journal of Enzyme Inhibition and Medicinal Chemistry (2004), 19(2), 129-135
CODEN: JEIMAZ; ISSN: 1475-6366
PUBLISHER: Taylor & Francis Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

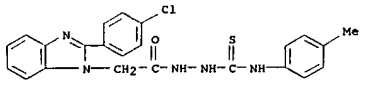
AB Some novel benzimidazole derivs. carrying thiosemicarbazide and triazole moieties at the N1 position were synthesized and their in vitro effects on rat liver microsomal NADPH-dependent lipid peroxidn. (LP) levels determined by measuring the formation of 2-thiobarbituric acid reactive substance. The free radical scavenging properties of the compds. were also examined in vitro by determining the capacity to scavenge superoxide anion formation and the interaction with the stable free radical 2,2-diphenyl-1-picrylhydrazyl (DPPH). The compds. showed a significant effect in the above tests except to scavenge superoxide anion formation.

IT **705970-06-5P 705970-08-7P 705970-10-1P**
705970-12-3P 705970-14-5P 705970-16-7P
705970-18-9P 705970-20-3P 705970-22-5P
705970-24-7P 705970-26-9P 705970-27-0P
RL: PAC (Pharmacological activity); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(synthesis and antioxidant properties of novel benzimidazole derivs.)

RN 705970-06-5 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-(4-chlorophenyl)-, 2-[(phenylamino)thioxomethyl]hydrazide (9CI) (CA INDEX NAME)

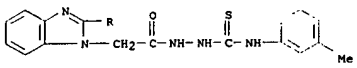


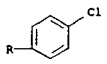
RN 705970-08-7 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-(4-chlorophenyl)-, 2-[[(4-methylphenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)



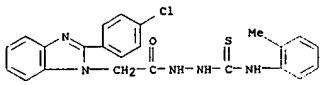
RN 705970-10-1 CAPLUS

L4 ANSWER 12 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CN 1H-Benzimidazole-1-acetic acid, 2-(4-chlorophenyl)-, 2-[[(3-methylphenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)

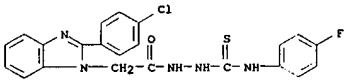




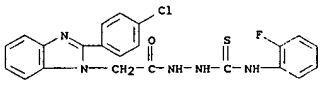
RN 705970-12-3 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-(4-chlorophenyl)-, 2-[[(2-methylphenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)



RN 705970-14-5 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-(4-chlorophenyl)-, 2-[[(4-fluorophenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)

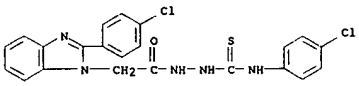


RN 705970-16-7 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-(4-chlorophenyl)-, 2-[[(2-fluorophenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)

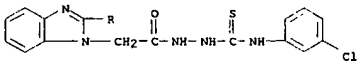


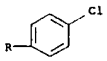
RN 705970-18-9 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-(4-chlorophenyl)-, 2-[[(4-

L4 ANSWER 12 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
chlorophenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)

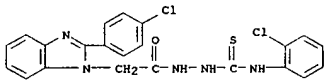


RN 705970-20-3 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-(4-chlorophenyl)-, 2-[[(3-chlorophenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)

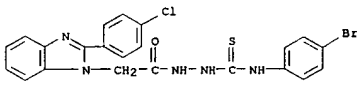




RN 705970-22-5 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-(4-chlorophenyl)-, 2-[[(2-chlorophenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)

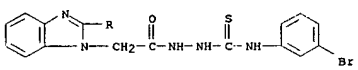


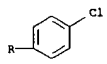
RN 705970-24-7 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-(4-chlorophenyl)-, 2-[[(4-bromophenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)



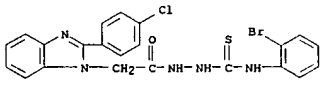
RN 705970-26-9 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-(4-chlorophenyl)-, 2-[[(3-bromophenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)

L4 ANSWER 12 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



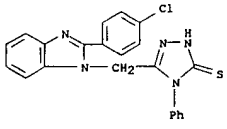


RN 705970-27-0 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-(4-chlorophenyl)-, 2-[[(2-bromophenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)



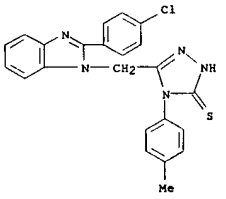
IT **705970-29-2P 705970-31-6P 705970-33-8P**
705970-35-0P 705970-37-2P 705970-39-4P
705970-41-8P 705970-43-0P 705970-45-2P
705970-47-4P 705970-49-6P 705970-51-0P
705970-53-2P
RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis and antioxidant properties of novel benzimidazole derivs.)

RN 705970-29-2 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 5-[[2-(4-chlorophenyl)-1H-benzimidazol-1-yl]methyl]-2,4-dihydro-4-phenyl- (9CI) (CA INDEX NAME)

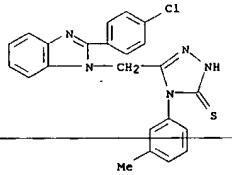


RN 705970-31-6 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 5-[[2-(4-chlorophenyl)-1H-benzimidazol-1-yl]methyl]-2,4-dihydro-4-(4-methylphenyl)- (9CI) (CA INDEX NAME)

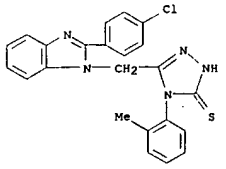
L4 ANSWER 12 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 705970-33-8 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 5-[[2-(4-chlorophenyl)-1H-benzimidazol-1-yl]methyl]-2,4-dihydro-4-(3-methylphenyl)- (9CI) (CA INDEX NAME)

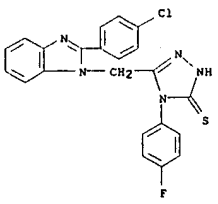


RN 705970-35-0 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 5-[[2-(4-chlorophenyl)-1H-benzimidazol-1-yl]methyl]-2,4-dihydro-4-(2-methylphenyl)- (9CI) (CA INDEX NAME)

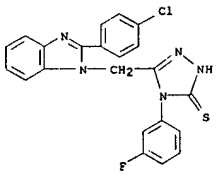


RN 705970-37-2 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 5-[[2-(4-chlorophenyl)-1H-benzimidazol-1-yl]methyl]-4-(4-fluorophenyl)-2,4-dihydro- (9CI) (CA INDEX NAME)

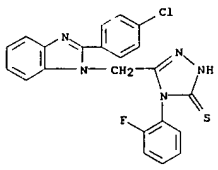
L4 ANSWER 12 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 705970-39-4 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 5-[[2-(4-chlorophenyl)-1H-benzimidazol-1-yl]methyl]-4-(3-fluorophenyl)-2,4-dihydro- (9CI) (CA INDEX NAME)

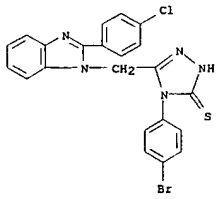


RN 705970-41-8 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 5-[[2-(4-chlorophenyl)-1H-benzimidazol-1-yl]methyl]-4-(2-fluorophenyl)-2,4-dihydro- (9CI) (CA INDEX NAME)

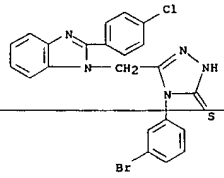


RN 705970-43-0 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 4-(4-chlorophenyl)-5-[[2-(4-chlorophenyl)-1H-benzimidazol-1-yl]methyl]-2,4-dihydro- (9CI) (CA INDEX NAME)

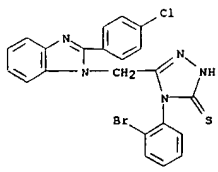
L4 ANSWER 12 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 705970-51-0 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 4-(3-bromophenyl)-5-[[2-(4-chlorophenyl)-1H-benzimidazol-1-yl]methyl]-2,4-dihydro- (9CI) (CA INDEX NAME)

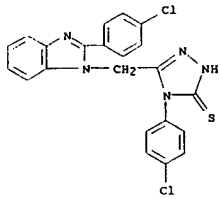


RN 705970-53-2 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 4-(2-bromophenyl)-5-[[2-(4-chlorophenyl)-1H-benzimidazol-1-yl]methyl]-2,4-dihydro- (9CI) (CA INDEX NAME)

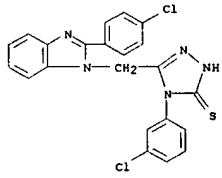


IT 705970-58-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis and antioxidant properties of novel benzimidazole derivs.)
RN 705970-58-7 CAPLUS

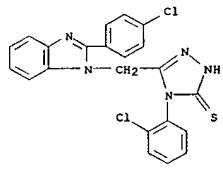
L4 ANSWER 12 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 705970-45-2 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 4-(3-chlorophenyl)-5-[[2-(4-chlorophenyl)-1H-benzimidazol-1-yl]methyl]-2,4-dihydro- (9CI) (CA INDEX NAME)

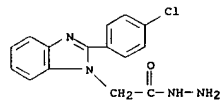


RN 705970-47-4 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 4-(2-chlorophenyl)-5-[[2-(4-chlorophenyl)-1H-benzimidazol-1-yl]methyl]-2,4-dihydro- (9CI) (CA INDEX NAME)



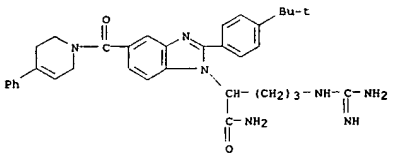
RN 705970-49-6 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 4-(4-bromophenyl)-5-[[2-(4-chlorophenyl)-1H-

L4 ANSWER 12 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CN 1H-Benzimidazole-1-acetic acid, 2-(4-chlorophenyl)-, hydrazide (9CI) (CA INDEX NAME)



REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 13 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 26 Apr 2004
ACCESSION NUMBER: 2004:339480 CAPLUS
DOCUMENT NUMBER: 141:98992
TITLE: A predictive pharmacophore model of human melanocortin-4 receptor as derived from the solution structures of cyclic peptides
AUTHOR(S): Sun, Hongmao; Greeley, David N.; Chu, Xin-Jie; Cheung, Adrian; Danho, Waleed; Swistok, Joseph; Wang, Yao; Zhao, Chunlin; Chen, Li; Fry, David C.
CORPORATE SOURCE: Discovery Chemistry, Hoffmann-La Roche Inc., Nutley, NJ, 07110, USA
SOURCE: Bioorganic & Medicinal Chemistry (2004), 12(10), 2671-2677
CODEN: BMECEP; ISSN: 0968-0896
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Using NMR (NMR) spectroscopy, we have determined the solution structures for a series of potent agonists for the human melanocortin-4 receptor (hMC4R), based on the cyclic peptide MT-II [Ac-Nle-cyclo-(Asp-Lys)(Asp-His-(D)Phe-Arg-Trp-Lys)-NH2]. Members of this series were designed to improve selectivity for MC4R vs. the other melanocortin receptors, and to reduce the flexibility of the side chains. The most selective and rigid analog [penta-cyclo(D-K)-Asp-Apc-(D)Phe-Arg-(2S,3S)-β-methylTrp-Lys-NH2] was found to be a full agonist of hMC4R with an EC50 of 11 nM against hMC4R, and to exhibit 65-fold selectivity against hMC1R. This compound represents the most constrained hMC4R peptide agonist described to date. A β-turn structure was conserved among all of the cyclic peptides studied. The rigidity of the analogs allowed an exceptionally well-defined pharmacophore model to be derived. This model was used to perform a virtual screen using a library of 1000 drug-like compds., to which a small set of known potent ligands had been intentionally added. The utility of the model was validated by its ability to identify the known ligands from among this large library.
IT 717097-42-2
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); BIOL (Biological study)
(predictive pharmacophore model of human melanocortin-4 receptor as derived from the solution structures of cyclic peptides)
RN 717097-42-2 CAPLUS
CN 1H-Benzimidazole-1-acetamide, α-[3-[(aminoiminomethyl)amino]propyl]-5-[(3,6-dihydro-4-phenyl-1(2H)-pyridinyl)carbonyl]-2-[4-(1,1-dimethylethyl)phenyl]- (9CI) (CA INDEX NAME)

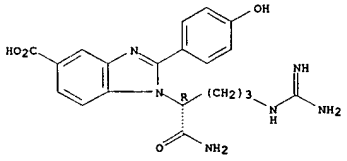


L4 ANSWER 13 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 14 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 09 Apr 2004
ACCESSION NUMBER: 2004:292557 CAPLUS
DOCUMENT NUMBER: 141:33318
TITLE: Histogranin-like antinociceptive and anti-inflammatory derivatives of o-phenylenediamine and benzimidazole
AUTHOR(S): Le, Hoang-Thanh; Lemaire, Irma B.; Gilbert, Annie-Kim; Jolicoeur, Francois; Yang, Lin; Leduc, Natacha; Lemaire, Simon
CORPORATE SOURCE: Department of Cellular and Molecular Medicine, Faculty of Medicine, University of Ottawa, Ottawa, ON, Can.
SOURCE: Journal of Pharmacology and Experimental Therapeutics (2004), 309(1), 146-155
CODEN: JPETAB; ISSN: 0022-3565
PUBLISHER: American Society for Pharmacology and Experimental Therapeutics
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 141:33318
AB Histogranin (HN)-like nonpeptides were designed and synthesized using benzimidazole (compound 1) and o-phenylenediamine (compds. 2-7) as scaffolds for the attachment of phenolic hydroxyl and basic guanidino pharmacophoric elements present in HN. The benzimidazole derivative N-5-guanidinopentanamide-(2R)-yl-2-(p-hydroxybenzyl)-5-carboxybenzimidazole (1) and the o-phenylenediamine derivative N-5-guanidinopentanamide-(2S)-yl-2-N-(p-hydroxyphenylacetyl) phenylenediamine (2) were more potent analgesics than HN in both the mouse writhing (5.5 and 3.5 as potent as HN, resp.) and tail-flick (11.8 and 8.0 as potent as HN, resp.) pain assays. Improvements in the potencies and times of action of compound 2 in the mouse writhing test were obtained by attaching carboxyl (6) or p-Cl-benzoyl (7) groups at position 4 of the (2R) o-phenylenediamine derivative (5). In rats, compds. 2 (80 nmol i.t.), 6 (36 nmol i.t.), and 7 (18 nmol i.t.) were effective in blocking both persistent inflammatory pain in the formalin test and hyperalgesia in the complete Freund adjuvant assay. Compds. 2, 6, and 7, but not compound 1 at 10 nmol (i.c.v.) also mimicked the HN (60 nmol i.c.v.) blockade of N-methyl-D-aspartate (NMDA)-induced convulsions in mice. Finally, in primary cultures of rat alveolar macrophages, HN and compds. 1, 2, 6, and 7 (10-8 M) significantly blocked lipopolysaccharide-induced cyclooxygenase-2 induction and prostaglandin E2 secretion. These studies indicate that both derivs. of benzimidazole and o-phenylenediamine mimic the in vivo antinociceptive and in vitro anti-inflammatory effects of HN, but the HN protection of mice against NMDA-induced convulsions is mimicked only by the o-phenylenediamine derivs.
IT 573720-54-4P
RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(histogranin-like antinociceptive and anti-inflammatory derivs. of o-phenylenediamine and benzimidazole)
RN 573720-54-4 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 1-[(1R)-1-(aminocarbonyl)-4-[(aminoiminomethyl)amino]butyl]-2-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

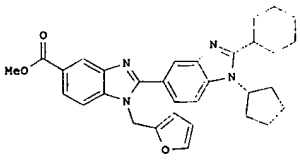
Absolute stereochemistry.

L4 ANSWER 14 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

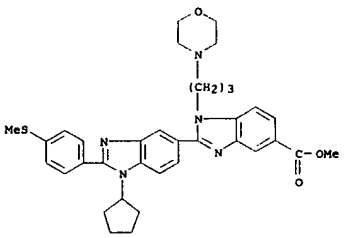
L4 ANSWER 15 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 24 Mar 2004
ACCESSION NUMBER: 2004:242529 CAPLUS
DOCUMENT NUMBER: 140:375116
TITLE: Focused microwave-assisted parallel synthesis of bis-benzimidazoles
AUTHOR(S): Lin, Mei-Jung; Sun, Chung-Ming
CORPORATE SOURCE: Department of Chemistry, National Dong Hwa University, Hualien, 974, Taiwan
SOURCE: Synlett (2004), (4), 663-666
CODEN: SYNLES; ISSN: 0936-5214
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



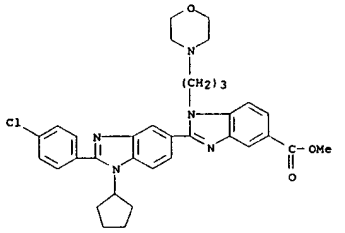
I

AB Combinatorial parallel synthesis of bis(benzimidazoles), e.g. I, by focused (mono-modal) microwave irradiation, is described. Polymer-immobilized o-phenylenediamines as a versatile template were synthesized under microwave irradiation The resulting PEG-bound diamines were N-acylated with 4-fluoro-3-nitrobenzoic acid selectively on the primary aromatic amino moiety. The nucleophilic aromatic substitution of amides was performed with different amines, then cyclized to benzimidazoles under acidic condition. Successive reduction and cyclization with various aldehydes yielded 5-(benzimidazol-2-yl)benzimidazoles. The desired products were released from the polymer support to afford the tri-substituted bis-benzimidazoles in good yields and purity.
IT **684259-33-4P 684259-34-5P**
RL: CPN (Combinatorial preparation); CMBI (Combinatorial study); PREP (Preparation)
(microwave-assisted combinatorial preparation of bis(benzimidazoles) via heterocyclization of PEG-supported [(amino)nitrobenzamido]aminobenzoate followed by reduction, heterocyclization with aldehydes, and resin cleavage)
RN 684259-33-4 CAPLUS
CN [2,5'-Bi-1H-benzimidazole]-5-carboxylic acid, 1'-cyclopentyl-2'-[4-(methylthio)phenyl]-1-[3-(4-morpholinyl)propyl]-, methyl ester (9CI) (CA INDEX NAME)

L4 ANSWER 15 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 684259-34-5 CAPLUS
CN [2,5'-Bi-1H-benzimidazole]-5-carboxylic acid, 2'-(4-chlorophenyl)-1'-cyclopentyl-1-[3-(4-morpholinyl)propyl]-, methyl ester (9CI) (CA INDEX NAME)

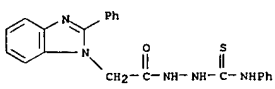


REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 16 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 24 Mar 2004
ACCESSION NUMBER: 2004:242268 CAPLUS
DOCUMENT NUMBER: 141:260638
TITLE: Synthesis and antioxidant properties of some novel benzimidazole derivatives on lipid peroxidation in the rat liver
AUTHOR(S): Kus, Canan; Ayhan-Kilcigil, Guelguen; Eke, Benay Can; Iscan, Muemtaz
CORPORATE SOURCE: Department of Pharmaceutical Chemistry, Faculty of Pharmacy, Ankara University, Ankara, 06100, Turk.
SOURCE: Archives of Pharmacal Research (2004), 27(2), 156-163
CODEN: APHRDQ; ISSN: 0253-6269
PUBLISHER: Pharmaceutical Society of Korea
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

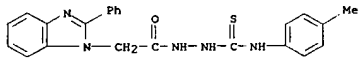
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Some benzimidazole derivs. namely 1-[(thiocarbamoylhydrazinecarbonyl)methyl]-2-phenyl-1H-benzimidazoles, e.g., I, N-[(2-phenylbenzimidazol-1-ylmethyl)-[1,3,4]-thiadiazole-2-yl]arylamines, e.g., II, and 5-(2-Ph benzimidazol-1-ylmethyl)-4-aryl-4H-1,2,4-triazole-3-thiones, e.g., III, were synthesized, and their in vitro effects on the rat liver microsomal NADPH-dependent lipid peroxidn. (LP) levels were determined The most active compound was I, which caused an 84% inhibition of LP at 10-3 M, which was better than that of butylated hydroxytoluene that only caused 65% inhibition.
IT **755010-60-7P 755010-62-9P 755010-64-1P**
755010-66-3P 755010-68-5P 755010-70-9P
755010-72-1P 755010-74-3P 755010-76-5P
755010-78-7P 755010-80-1P 755010-82-3P
755010-84-5P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(preparation and antioxidant activity of [(phenylbenzimidazolyl)methyl]thiadiazoles and -dihydrotriazolethiones via thiocarbamoylation of phenylbenzimidazolylacetic acid hydrazide with arylisothiocyanate followed by heterocyclization)
RN 755010-60-7 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-phenyl-, 2-[(phenylamino)thioxomethyl]hydrazide (9CI) (CA INDEX NAME)

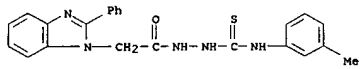


RN 755010-62-9 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-phenyl-, 2-[[(4-methylphenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)

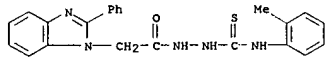
L4 ANSWER 16 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



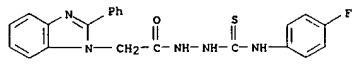
RN 755010-64-1 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-phenyl-, 2-[[(3-methylphenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)



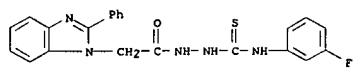
RN 755010-66-3 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-phenyl-, 2-[[(2-methylphenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)



RN 755010-68-5 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-phenyl-, 2-[[(4-fluorophenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)

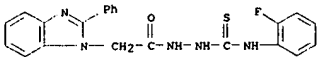


RN 755010-70-9 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-phenyl-, 2-[[(3-fluorophenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)

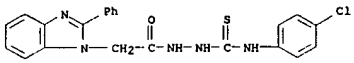


RN 755010-72-1 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-phenyl-, 2-[[(2-fluorophenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)

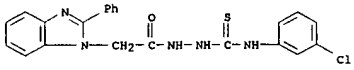
L4 ANSWER 16 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



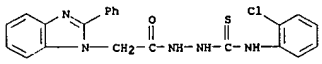
RN 755010-74-3 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-phenyl-, 2-[[(4-chlorophenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)



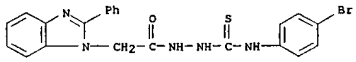
RN 755010-76-5 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-phenyl-, 2-[[(3-chlorophenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)



RN 755010-78-7 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-phenyl-, 2-[[(2-chlorophenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)

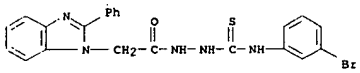


RN 755010-80-1 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-phenyl-, 2-[[(4-bromophenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)

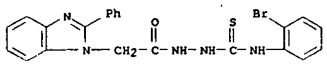


RN 755010-82-3 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-phenyl-, 2-[[(3-bromophenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)

L4 ANSWER 16 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

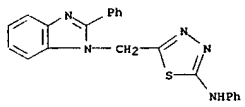


RN 755010-84-5 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-phenyl-, 2-[[(2-bromophenyl)amino]thioxomethyl]hydrazide (9CI) (CA INDEX NAME)



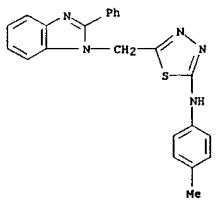
IT 755010-86-7P 755010-88-9P 755010-90-3P
755010-92-5P 755010-94-7P 755010-96-9P
755010-98-1P 755011-00-8P 755011-02-0P
755011-04-2P 755011-06-4P 755011-08-6P
755011-10-0P 755011-12-2P 755011-14-4P
755011-16-6P 755011-18-8P 755011-20-2P
755011-22-4P 755011-24-6P 755011-26-8P
755011-28-0P 755011-30-4P 755011-32-6P
755011-34-8P 755011-36-0P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and antioxidant activity of [(phenylbenzimidazolyl)methyl]thiadiazoles and -dihydrotriazolethiones via thiocarbamoylation of phenylbenzimidazolylacetic acid hydrazide with arylisothiocyanate followed by heterocyclization)

RN 755010-86-7 CAPLUS
CN 1,3,4-Thiadiazol-2-amine, N-phenyl-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

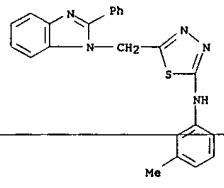


RN 755010-88-9 CAPLUS
CN 1,3,4-Thiadiazol-2-amine, N-(4-methylphenyl)-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

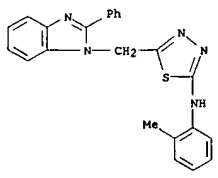
L4 ANSWER 16 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 755010-90-3 CAPLUS
CN 1,3,4-Thiadiazol-2-amine, N-(3-methylphenyl)-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

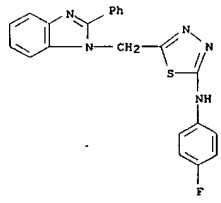


RN 755010-92-5 CAPLUS
CN 1,3,4-Thiadiazol-2-amine, N-(2-methylphenyl)-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

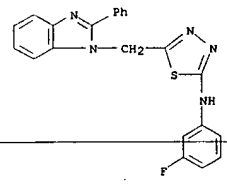


RN 755010-94-7 CAPLUS
CN 1,3,4-Thiadiazol-2-amine, N-(4-fluorophenyl)-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

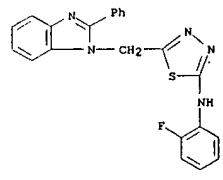
L4 ANSWER 16 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 755010-96-9 CAPLUS
CN 1,3,4-Thiadiazol-2-amine, N-(3-fluorophenyl)-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

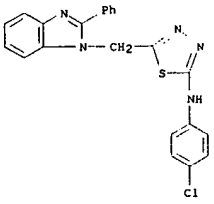


RN 755010-98-1 CAPLUS
CN 1,3,4-Thiadiazol-2-amine, N-(2-fluorophenyl)-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

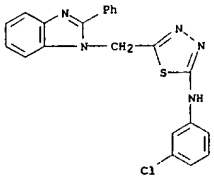


RN 755011-00-8 CAPLUS
CN 1,3,4-Thiadiazol-2-amine, N-(4-chlorophenyl)-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

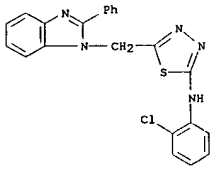
L4 ANSWER 16 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 755011-02-0 CAPLUS
CN 1,3,4-Thiadiazol-2-amine, N-(3-chlorophenyl)-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

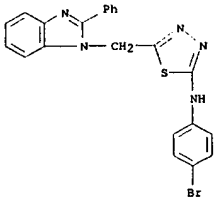


RN 755011-04-2 CAPLUS
CN 1,3,4-Thiadiazol-2-amine, N-(2-chlorophenyl)-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

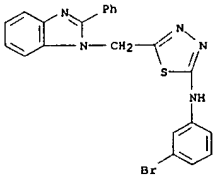


RN 755011-06-4 CAPLUS
CN 1,3,4-Thiadiazol-2-amine, N-(4-bromophenyl)-5-[(2-phenyl-1H-benzimidazol-1-

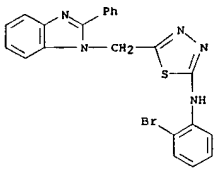
L4 ANSWER 16 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
yl)methyl]- (9CI) (CA INDEX NAME)



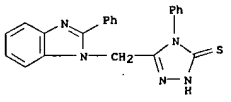
RN 755011-08-6 CAPLUS
CN 1,3,4-Thiadiazol-2-amine, N-(3-bromophenyl)-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)



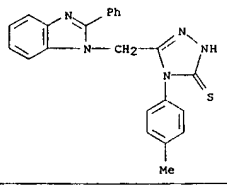
RN 755011-10-0 CAPLUS
CN 1,3,4-Thiadiazol-2-amine, N-(2-bromophenyl)-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)



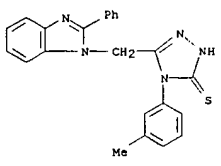
L4 ANSWER 16 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
RN 755011-12-2 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 2,4-dihydro-4-phenyl-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)



RN 755011-14-4 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 2,4-dihydro-4-(4-methylphenyl)-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

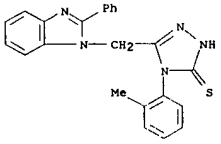


RN 755011-16-6 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 2,4-dihydro-4-(3-methylphenyl)-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

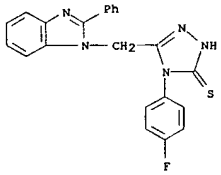


RN 755011-18-8 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 2,4-dihydro-4-(2-methylphenyl)-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

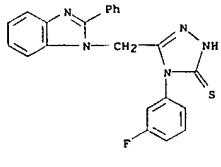
L4 ANSWER 16 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 755011-20-2 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 4-(4-fluorophenyl)-2,4-dihydro-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

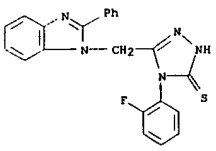


RN 755011-22-4 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 4-(3-fluorophenyl)-2,4-dihydro-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

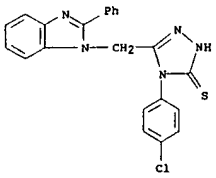


RN 755011-24-6 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 4-(2-fluorophenyl)-2,4-dihydro-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

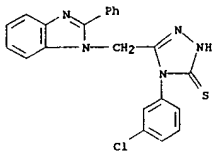
L4 ANSWER 16 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 755011-26-8 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 4-(4-chlorophenyl)-2,4-dihydro-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

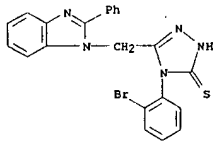


RN 755011-28-0 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 4-(3-chlorophenyl)-2,4-dihydro-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

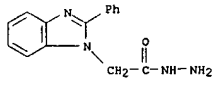


RN 755011-30-4 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 4-(2-chlorophenyl)-2,4-dihydro-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 16 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

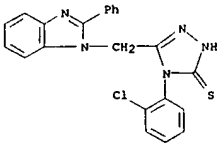


IT 477543-36-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation and antioxidant activity of [(phenylbenzimidazolyl)methyl]thiadiazoles and -dihydrotriazolethiones via thiocarbamoylation of phenylbenzimidazolylacetic acid hydrazide with arylisothiocyanate followed by heterocyclization)
RN 477543-36-5 CAPLUS
CN 1H-Benzimidazole-1-acetic acid, 2-phenyl-, hydrazide (9CI) (CA INDEX NAME)

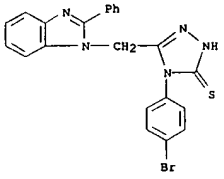


REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

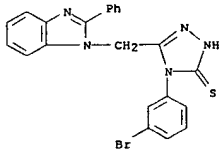
L4 ANSWER 16 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 755011-32-6 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 4-(4-bromophenyl)-2,4-dihydro-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)



RN 755011-34-8 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 4-(3-bromophenyl)-2,4-dihydro-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

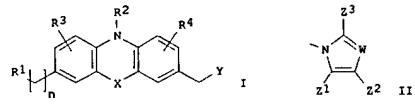


RN 755011-36-0 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 4-(2-bromophenyl)-2,4-dihydro-5-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 17 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 05 Mar 2004
ACCESSION NUMBER: 2004:182725 CAPLUS
DOCUMENT NUMBER: 140:247102
TITLE: Preventive and/or therapeutic drugs for itch
INVENTOR(S): Saki, Mayumi; Nonaka, Hiromi; Miyaji, Hiromasa; Ichikawa, Shunji; Takashima, Chiemi; Matsumura, Tsutomu; Arai, Hitoshi; Sasaki, Katsutoshi; Kobatake, Choei; Tsukumo, Yukihito; Iida, Kyoichiro; Kuboyama, Takeshi; Manabe, Haruhiko
PATENT ASSIGNEE(S): Kyowa Hakko Kogyo Co., Ltd., Japan
SOURCE: PCT Int. Appl., 161 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004017995	A1	20040304	WO 2003-IB3475	20030822
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

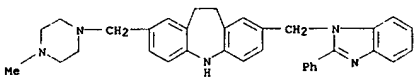
PRIORITY APPLN. INFO.: JP 2002-241522 A 20020822
OTHER SOURCE(S): MARPAT 140:247102
GI



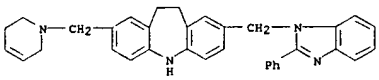
AB Preventive and/or therapeutic drugs for itch containing as the active ingredient substances capable of suppressing the functions of GPR4 relating to signal transduction; and nitrogen-containing tricyclic compds. represented by the general formula I (R1 is substituted or unsubstituted lower alkyl or the like; R2 is hydrogen, substituted or unsubstituted lower alkyl, or the like; R3 and R4 are each independently hydrogen, lower alkyl, or the like; n is 0 or 1; X = -(CH2)2- or the like; and Y = a group represented by the general formula II wherein W is CH or nitrogen; Z1 and Z2 are each independently hydrogen, substituted or unsubstituted lower alkyl, or the like; and Z3 is hydrogen, substituted or unsubstituted lower alkyl, or the like), quaternary ammonium salts thereof, or pharmacol. acceptable salts of both.
IT 666717-31-3P 666717-32-4P 666717-33-5P
666717-34-6P 666717-35-7P 666717-37-9P
666717-38-0P 666717-39-1P 666717-40-4P
666717-41-5P 666717-42-6P 666717-43-7P
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); SPN

L4 ANSWER 17 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
(Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preventive and/or therapeutic drugs for itch)

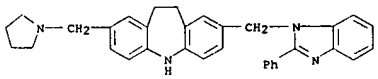
RN 666717-31-3 CAPLUS
CN 5H-Dibenz[b,f]azepine, 10,11-dihydro-2-[(4-methyl-1-piperazinyl)methyl]-8-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)



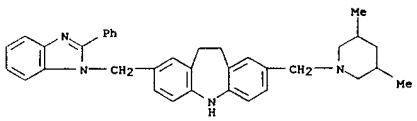
RN 666717-32-4 CAPLUS
CN 5H-Dibenz[b,f]azepine, 2-[(3,6-dihydro-1(2H)-pyridinyl)methyl]-10,11-dihydro-8-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)



RN 666717-33-5 CAPLUS
CN 5H-Dibenz[b,f]azepine, 10,11-dihydro-2-[(2-phenyl-1H-benzimidazol-1-yl)methyl]-8-(1-pyrrolidinylmethyl)- (9CI) (CA INDEX NAME)

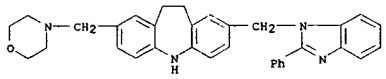


RN 666717-34-6 CAPLUS
CN 5H-Dibenz[b,f]azepine, 2-[(3,5-dimethyl-1-piperidinyl)methyl]-10,11-dihydro-8-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

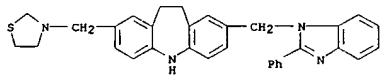


RN 666717-35-7 CAPLUS
CN 5H-Dibenz[b,f]azepine, 2-({1,4'-bipiperidin]-1'-ylmethyl)-10,11-dihydro-8-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

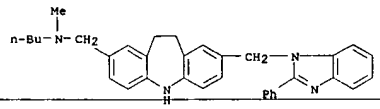
L4 ANSWER 17 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



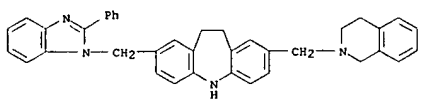
RN 666717-41-5 CAPLUS
CN 5H-Dibenz[b,f]azepine, 10,11-dihydro-2-[(2-phenyl-1H-benzimidazol-1-yl)methyl]-8-(3-thiazolidinylmethyl)- (9CI) (CA INDEX NAME)



RN 666717-42-6 CAPLUS
CN 5H-Dibenz[b,f]azepine-2-methanamine, N-butyl-10,11-dihydro-N-methyl-8-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

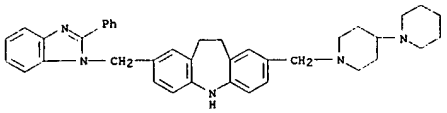


RN 666717-43-7 CAPLUS
CN 5H-Dibenz[b,f]azepine, 2-[(3,4-dihydro-2(1H)-isoquinolinyl)methyl]-10,11-dihydro-8-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

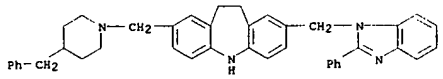


REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

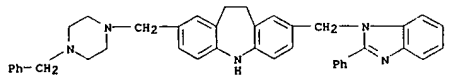
L4 ANSWER 17 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



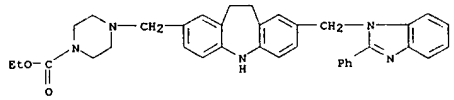
RN 666717-37-9 CAPLUS
CN 5H-Dibenz[b,f]azepine, 10,11-dihydro-2-[(2-phenyl-1H-benzimidazol-1-yl)methyl]-8-[[4-(phenylmethyl)-1-piperidinyl]methyl]- (9CI) (CA INDEX NAME)



RN 666717-38-0 CAPLUS
CN 5H-Dibenz[b,f]azepine, 10,11-dihydro-2-[(2-phenyl-1H-benzimidazol-1-yl)methyl]-8-[[4-(phenylmethyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



RN 666717-39-1 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[10,11-dihydro-8-[(2-phenyl-1H-benzimidazol-1-yl)methyl]-5H-dibenz[b,f]azepin-2-yl]methyl]-, ethyl ester (9CI) (CA INDEX NAME)



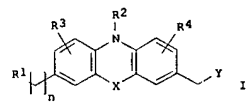
RN 666717-40-4 CAPLUS
CN 5H-Dibenz[b,f]azepine, 10,11-dihydro-2-(4-morpholinylmethyl)-8-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 18 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 05 Mar 2004
ACCESSION NUMBER: 2004:182724 CAPLUS
DOCUMENT NUMBER: 140:247070
TITLE: Preventive and/or therapeutic drugs for asthma
INVENTOR(S): Saki, Mayumi; Nonaka, Hiromi; Miyaji, Hiromasa; Hiura, Naoko; Manabe, Haruhiko; Matsumura, Tsutomu; Arai, Hitoshi; Sasaki, Katsutoshi; Kobatake, Choei; Iida, Kyoichiro; Kuboyama, Takeshi
PATENT ASSIGNEE(S): Kyowa Hakko Kogyo Co., Ltd., Japan
SOURCE: PCT Int. Appl., 156 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004017994	A1	20040304	WO 2003-IB3470	20030822

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: JP 2002-241523 A 20020822
OTHER SOURCE(S): MARPAT 140:247070
GI



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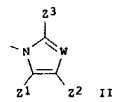
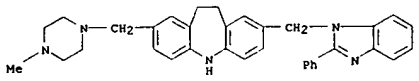


II

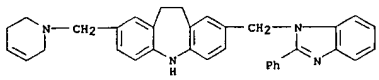
AB Preventive and/or therapeutic drugs for asthma containing as the active ingredient substances capable of suppressing the functions of GPR4 relating to signal transduction; and preventive and/or therapeutic drugs for asthma containing as the active ingredient nitrogen-containing tricyclic compds. represented by the general formula I (R1 is substituted or unsubstituted lower alkyl or the like; R2 = H, substituted or unsubstituted lower alkyl, or the like; R3 and R4 are each independently hydrogen, lower alkyl, or the like; n = 0 or 1; X = -(CH2)2- or the like; and Y = general formula II wherein W = CH or N; Z1 and Z2 are each independently hydrogen, substituted or unsubstituted lower alkyl, or the like; and Z3 = H, substituted or unsubstituted lower alkyl, or the like) quaternary ammonium salts thereof, or pharmacol. acceptable salts of both were offered.

IT **666717-31-3P 666717-32-4P 666717-33-5P**
666717-34-6P 666717-35-7P 666717-37-9P
666717-38-0P 666717-39-1P 666717-40-4P
666717-41-5P 666717-42-6P 666717-43-7P
RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic

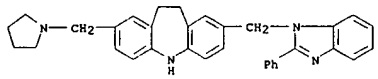
L4 ANSWER 18 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preventive and/or therapeutic drugs for asthma)
RN 666717-31-3 CAPLUS
CN 5H-Dibenz[b,f]azepine, 10,11-dihydro-2-[(4-methyl-1-piperazinyl)methyl]-8-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)



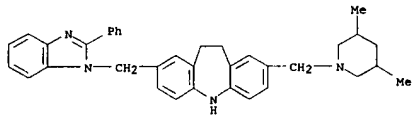
RN 666717-32-4 CAPLUS
CN 5H-Dibenz[b,f]azepine, 2-[(3,6-dihydro-1(2H)-pyridinyl)methyl]-10,11-dihydro-8-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)



RN 666717-33-5 CAPLUS
CN 5H-Dibenz[b,f]azepine, 10,11-dihydro-2-[(2-phenyl-1H-benzimidazol-1-yl)methyl]-8-(1-pyrrolidinylmethyl)- (9CI) (CA INDEX NAME)

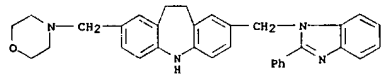


RN 666717-34-6 CAPLUS
CN 5H-Dibenz[b,f]azepine, 2-[(3,5-dimethyl-1-piperidinyl)methyl]-10,11-dihydro-8-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

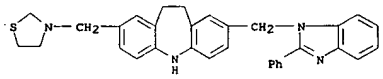


RN 666717-35-7 CAPLUS
CN 5H-Dibenz[b,f]azepine, 2-([1,4'-bipiperidin]-1'-ylmethyl)-10,11-dihydro-8-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

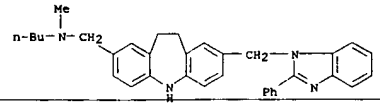
L4 ANSWER 18 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



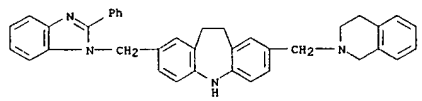
RN 666717-41-5 CAPLUS
CN 5H-Dibenz[b,f]azepine, 10,11-dihydro-2-[(2-phenyl-1H-benzimidazol-1-yl)methyl]-8-(3-thiazolidinylmethyl)- (9CI) (CA INDEX NAME)



RN 666717-42-6 CAPLUS
CN 5H-Dibenz[b,f]azepine-2-methanamine, N-butyl-10,11-dihydro-N-methyl-8-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

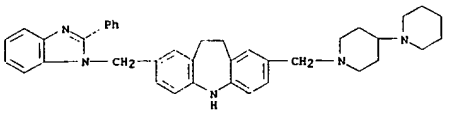


RN 666717-43-7 CAPLUS
CN 5H-Dibenz[b,f]azepine, 2-[(3,4-dihydro-2(1H)-isoquinolinyl)methyl]-10,11-dihydro-8-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

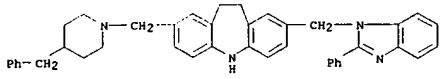


REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

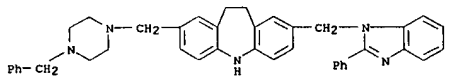
L4 ANSWER 18 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



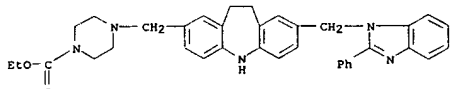
RN 666717-37-9 CAPLUS
CN 5H-Dibenz[b,f]azepine, 10,11-dihydro-2-[(2-phenyl-1H-benzimidazol-1-yl)methyl]-8-[[4-(phenylmethyl)-1-piperidinyl]methyl]- (9CI) (CA INDEX NAME)



RN 666717-38-0 CAPLUS
CN 5H-Dibenz[b,f]azepine, 10,11-dihydro-2-[(2-phenyl-1H-benzimidazol-1-yl)methyl]-8-[[4-(phenylmethyl)-1-piperazinyl]methyl]- (9CI) (CA INDEX NAME)



RN 666717-39-1 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[(10,11-dihydro-8-[(2-phenyl-1H-benzimidazol-1-yl)methyl]-5H-dibenz[b,f]azepin-2-yl)methyl]-, ethyl ester (9CI) (CA INDEX NAME)

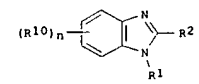


RN 666717-40-4 CAPLUS
CN 5H-Dibenz[b,f]azepine, 10,11-dihydro-2-(4-morpholinylmethyl)-8-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

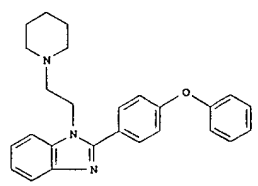
L4 ANSWER 19 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 08 Feb 2004
ACCESSION NUMBER: 2004:101142 CAPLUS
DOCUMENT NUMBER: 140:146139
TITLE: Preparation of aryl-substituted benzimidazoles and their use as sodium channel blockers
INVENTOR(S): Sun, Qun; Zhou, Xiaoming; Kyle, Donald J.
PATENT ASSIGNEE(S): Euro-Celtique S.A., Luxembourg
SOURCE: PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004011439	A2	20040205	WO 2003-US23828	20030731
WO 2004011439	A3	20040401		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2492305	AA	20040205	CA 2003-2492305	20030731
US 2004132777	A1	20040708	US 2003-630896	20030731
PRIORITY APPLN. INFO.:			US 2002-399458P P	20020731
			WO 2003-US23828 W	20030731

OTHER SOURCE(S): CASREACT 140:146139; MARPAT 140:146139
GI



I



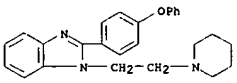
II

L4 ANSWER 19 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

AB Title compds. I [R1 = alkylene-amino; R2 = phenoxyphenyl, benzyloxyphenyl, phenylthiophenyl, etc.; R10 = H, OH, alkyl, alkoxy, etc.; n = 0-4] are prepared For instance, 1-(2-aminoethyl)piperidine is reacted with 2-fluoronitrobenzene (DMF, i-Pr2NEt) to give 1-(2-(2-nitrophenylamino)ethyl)piperidine. This intermediate is reduced (MeOH, H2-10% Pd/C, 3 atm, 16 h) and reacted with various aldehydes (PhNO2) to give the corresponding benzimidazole, e.g., II. Example compds. are potent blockers of the sodium channel, Ki = 180-1790 nM. I are useful for the treatment of neuronal damage following global and focal ischemia, for the treatment or prevention of neurodegenerative conditions such as amyotrophic lateral sclerosis (ALS) and for the treatment, prevention or amelioration of both acute or chronic pain.

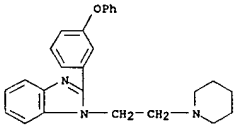
IT **653573-56-9P**, 1-(2-Piperidinylethyl)-2-(4-phenoxyphenyl)benzimidazole **653573-58-1P**, 1-(2-Piperidinylethyl)-2-[3-(4-tert-butylphenoxy)phenyl]benzimidazole **653573-60-5P**, 1-(2-Piperidinylethyl)-2-[3-(3,4-dichlorophenoxy)phenyl]benzimidazole **653573-62-7P**, 1-(2-Piperidinylethyl)-2-(2,2-diphenylethenyl)benzimidazole **653573-64-9P**, 1-(2-Piperidinylethyl)-2-(3-phenoxyphenyl)benzimidazole **653573-66-1P**, 1-(2-Piperidinylethyl)-2-[3-(3-(trifluoromethyl)phenoxy)phenyl]benzimidazole **653573-68-3P**, 1-(2-Piperidinylethyl)-2-(N-ethylcarbazol-3-yl)benzimidazole **653573-70-7P**, 1-(2-Piperidinylethyl)-2-(3-benzyloxyphenyl)benzimidazole **653573-71-8P**, 1-(2-Piperidinylethyl)-2-[4-(4-fluorophenoxy)phenyl]benzimidazole
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of aryl-substituted benzimidazoles and their use as sodium channel blockers)

RN 653573-56-9 CAPLUS
CN 1H-Benzimidazole, 2-(4-phenoxyphenyl)-1-[2-(1-piperidinyl)ethyl]- (9CI) (CA INDEX NAME)

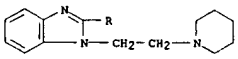


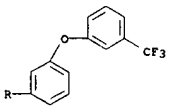
RN 653573-58-1 CAPLUS
CN 1H-Benzimidazole, 2-[3-[4-(1,1-dimethylethyl)phenoxy]phenyl]-1-[2-(1-piperidinyl)ethyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 19 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

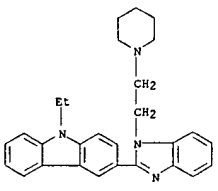


RN 653573-66-1 CAPLUS
CN 1H-Benzimidazole, 1-[2-(1-piperidinyl)ethyl]-2-[3-[3-(trifluoromethyl)phenoxy]phenyl]- (9CI) (CA INDEX NAME)



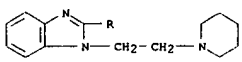


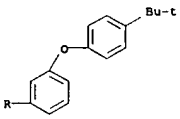
RN 653573-68-3 CAPLUS
CN 9H-Carbazole, 9-ethyl-3-[1-[2-(1-piperidinyl)ethyl]-1H-benzimidazol-2-yl]- (9CI) (CA INDEX NAME)



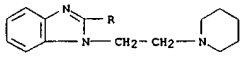
RN 653573-70-7 CAPLUS
CN 1H-Benzimidazole, 2-[3-(phenylmethoxy)phenyl]-1-[2-(1-piperidinyl)ethyl]- (9CI) (CA INDEX NAME)

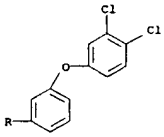
L4 ANSWER 19 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



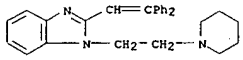


RN 653573-60-5 CAPLUS
CN 1H-Benzimidazole, 2-[3-(3,4-dichlorophenoxy)phenyl]-1-[2-(1-piperidinyl)ethyl]- (9CI) (CA INDEX NAME)



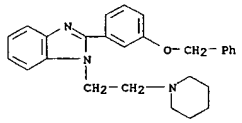


RN 653573-62-7 CAPLUS
CN 1H-Benzimidazole, 2-(2,2-diphenylethenyl)-1-[2-(1-piperidinyl)ethyl]- (9CI) (CA INDEX NAME)

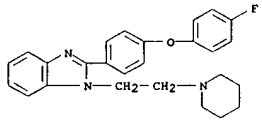


RN 653573-64-9 CAPLUS
CN 1H-Benzimidazole, 2-(3-phenoxyphenyl)-1-[2-(1-piperidinyl)ethyl]- (9CI) (CA INDEX NAME)

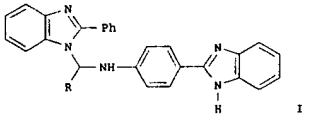
L4 ANSWER 19 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 653573-71-8 CAPLUS
CN 1H-Benzimidazole, 2-[4-(4-fluorophenoxy)phenyl]-1-[2-(1-piperidinyl)ethyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 20 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 16 Jan 2004
ACCESSION NUMBER: 2004:38778 CAPLUS
DOCUMENT NUMBER: 140:217555
TITLE: Synthesis of benzimidazole derivatives and their antibacterial and antifungal activities
AUTHOR(S): Bhatt, Ashutosh K.; Karadiya, Hasanali; Shah, Palak R.; Parmar, Manisha P.; Patel, H. D.
CORPORATE SOURCE: Chemistry Department, St. Xavier's College, Ahmedabad, 380 009, India
SOURCE: Indian Journal of Heterocyclic Chemistry (2003), 13(2), 187-188
CODEN: IJCHEI; ISSN: 0971-1627
PUBLISHER: Prof. R. S. Varma
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 140:217555
GI

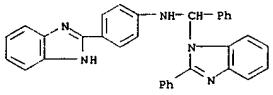


I

AB Reaction of 2-Ph-1-H-benzimidazole with p-aminobenzoic acid and aromatic aldehydes in ethanol furnishes 1-(α-p-carboxyphenyl-aminobenzyl)-2-Ph-benzimidazoles, which on treatment with o-phenylenediamine in pyridine results in the formation of 1-(α-p-benzimidazolyl-aminobenzyl)-2-Ph-benzimidazoles I (R = H, Ph, 2-HOC6H4, 4-HOC6H4, PhCH:CH). Antibacterial and antifungal activities of I were determined

IT **666718-58-7P 666718-59-8P 666718-60-1P**
666718-61-2P 666718-62-3P
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(antibacterial and antifungal activities; preparation of benzimidazole derivs. and their antibacterial and antifungal activities)

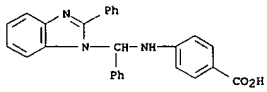
RN 666718-58-7 CAPLUS
CN 1H-Benzimidazole-1-methanamine, N-[4-(1H-benzimidazol-2-yl)phenyl]-α,2-diphenyl- (9CI) (CA INDEX NAME)



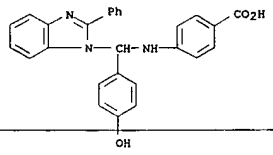
RN 666718-59-8 CAPLUS
CN Phenol, 4-[[[4-(1H-benzimidazol-2-yl)phenyl]amino](2-phenyl-1H-

L4 ANSWER 20 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
IT **666718-53-2 666718-54-3 666718-55-4**
666718-56-5 666718-57-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of benzimidazole derivs. and their antibacterial and antifungal activities)

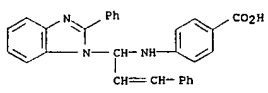
RN 666718-53-2 CAPLUS
CN Benzoic acid, 4-[[phenyl(2-phenyl-1H-benzimidazol-1-yl)methyl]amino]- (9CI) (CA INDEX NAME)



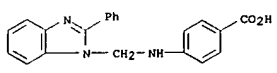
RN 666718-54-3 CAPLUS
CN Benzoic acid, 4-[[(4-hydroxyphenyl)(2-phenyl-1H-benzimidazol-1-yl)methyl]amino]- (9CI) (CA INDEX NAME)



RN 666718-55-4 CAPLUS
CN Benzoic acid, 4-[[3-phenyl-1-(2-phenyl-1H-benzimidazol-1-yl)-2-propenyl]amino]- (9CI) (CA INDEX NAME)

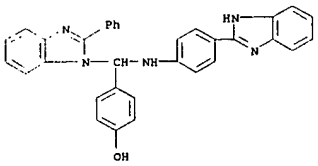


RN 666718-56-5 CAPLUS
CN Benzoic acid, 4-[[(2-phenyl-1H-benzimidazol-1-yl)methyl]amino]- (9CI) (CA INDEX NAME)

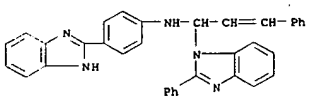


RN 666718-57-6 CAPLUS
CN Benzoic acid, 4-[[(2-hydroxyphenyl)(2-phenyl-1H-benzimidazol-1-yl)methyl]amino]- (9CI) (CA INDEX NAME)

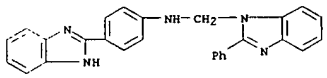
L4 ANSWER 20 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)



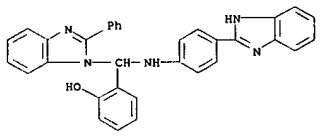
RN 666718-60-1 CAPLUS
CN 1H-Benzimidazole-1-methanamine, N-[4-(1H-benzimidazol-2-yl)phenyl]-2-phenyl-α-(2-phenylethenyl)- (9CI) (CA INDEX NAME)



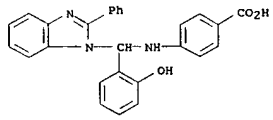
RN 666718-61-2 CAPLUS
CN 1H-Benzimidazole-1-methanamine, N-[4-(1H-benzimidazol-2-yl)phenyl]-2-phenyl- (9CI) (CA INDEX NAME)



RN 666718-62-3 CAPLUS
CN Phenol, 2-[[[4-(1H-benzimidazol-2-yl)phenyl]amino](2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 20 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



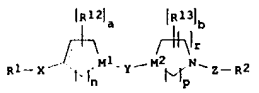
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 21 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 31 Oct 2003
ACCESSION NUMBER: 2003:855801 CAPLUS
DOCUMENT NUMBER: 139:350734
TITLE: Preparation of 1-(4-piperidinyl)benzimidazoles as histamine H3 antagonists
INVENTOR(S): Zeng, Qingbei; Aslanian, Robert G.; Berlin, Michael Y.; Boyce, Christopher W.; Cao, Jianhua; Kozlowski, Joseph A.; Mangiaracina, Pietro; McCormick, Kevin D.; Mutahi, Mwangi W.; Rosenblum, Stuart B.; Shih, Neng-Yang; Solomon, Daniel M.; Tom, Wing C.
PATENT ASSIGNEE(S): Schering Corporation, USA
SOURCE: PCT Int. Appl., 132 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

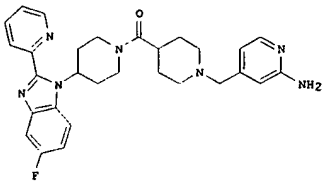
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003088967	A1	20031030	WO 2003-US11672	20030416
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LU, LV, MA, MD, MG, MK, MN, MX, MZ, NI, NO, NZ, PH, PL, PT, RO, RU, SC, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UZ, VC, VN, YU, ZA, ZM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2481940	AA	20031030	CA 2003-2481940	20030416
US 2004097483	A1	20040520	US 2003-417391	20030416
EP 1499316	A1	20050126	EP 2003-719766	20030416
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003009348	A	20050301	BR 2003-9348	20030416
PRIORITY APPLN. INFO.:			US 2002-373731P	P 20020418
			US 2002-373467P	P 20020418
			WO 2003-US11672	W 20030416

OTHER SOURCE(S): MARPAT 139:350734
GI

L4 ANSWER 21 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

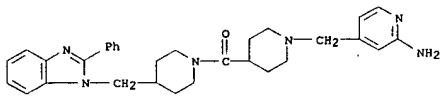


I



II

AB The title compds. [I; R1 = (un)substituted benzimidazolyl or a derivative thereof; R2 = (un)substituted aryl or heteroaryl; M1, M2 = CR3, N; X = a bond, alkylene; Y = CO, CS, SO2, etc.; Z = a bond, alkylene, CO, etc.; R3 = H, halo, alkyl, etc.; R12 = alkyl, OH, alkoxy, etc.; R13 = alkyl, alkoxy, OH, etc.; a, b = 0-2; n, p = 1-3; r = 0-3; with the provisos] which are histamine H3 antagonists, were prepared E.g., a multi-step synthesis of II which showed Ki of 1 nM in rHu H3 binding assay, was given. Also disclosed are pharmaceutical compns. comprising the compds. of formula I and methods of treating various diseases or conditions, such as allergy, allergy-induced airway responses, and congestion (e.g., nasal congestion) using the compds. I. Also disclosed are methods of treating said diseases or conditions using the compds. of formula I in combination with an H1 receptor antagonist.
IT **618897-03-3P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 1-(4-piperidinyl)benzimidazoles as histamine H3 antagonists)
RN 618897-03-3 CAPLUS
CN Piperidine, 1-[[1-[(2-amino-4-pyridinyl)methyl]-4-piperidinyl]carbonyl]-4-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS

L4 ANSWER 21 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 22 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 10 Oct 2003
ACCESSION NUMBER: 2003:796412 CAPLUS
DOCUMENT NUMBER: 139:307758
TITLE: Use of benzimidazole analogs in the treatment of cell proliferation
INVENTOR(S): Sircar, Jagadish C.; Richards, Mark L.
PATENT ASSIGNEE(S): Avanir Pharmaceuticals, USA
SOURCE: PCT Int. Appl., 280 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

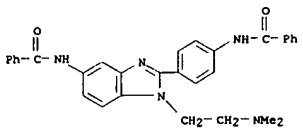
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003082186	A2	20031009	WO 2003-US6981	20030306
WO 2003082186	A3	20040325		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2479453	AA	20031009	CA 2003-2479453	20030306
EP 1494668	A2	20050112	EP 2003-711459	20030306
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
PRIORITY APPLN. INFO.:			US 2002-367686P	P 20020325
			WO 2003-US6981	W 20030306

OTHER SOURCE(S): MARPAT 139:307758
GI

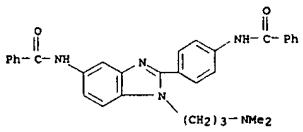
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The small mol. inhibitors [I-IV; X, Y = H, halo, alkyl, etc.; n = 0-3; m = 0-4; R = H, Me, CH2Ph, etc.; R1, R2 = H, alkyl, cycloalkyl, etc.; A, B rings = (un)substituted rings comprising 4-10 carbon atoms] such as V that are cellular proliferation inhibitors and thus are useful as anticancer agents (biol. data given for representative compds. I), were claimed. The small mols. have the general formulas that include a phenylbenzimidazole core ring. General methods of preparation were given (no phys. data for final compds.).
IT **366012-44-4 366012-45-5 366012-50-2 479074-59-4**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(use of benzimidazole analogs in the treatment of cell proliferation)
RN 366012-44-4 CAPLUS
CN Benzamide, N-[4-[5-(benzoylamino)-1-[2-(dimethylamino)ethyl]-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)

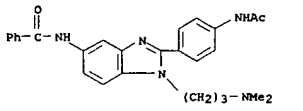
L4 ANSWER 22 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



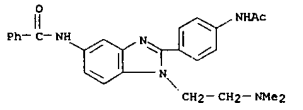
RN 366012-45-5 CAPLUS
CN Benzamide, N-[4-[5-(benzoylamino)-1-[3-(dimethylamino)propyl]-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)



RN 366012-50-2 CAPLUS
CN Benzamide, N-[2-[4-(acetylamino)phenyl]-1-[3-(dimethylamino)propyl]-1H-benzimidazol-5-yl]- (9CI) (CA INDEX NAME)



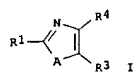
RN 479074-59-4 CAPLUS
CN Benzamide, N-[2-[4-(acetylamino)phenyl]-1-[2-(dimethylamino)ethyl]-1H-benzimidazol-5-yl]- (9CI) (CA INDEX NAME)



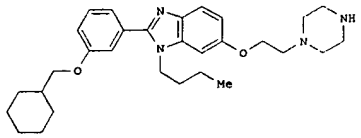
L4 ANSWER 23 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 19 Sep 2003
ACCESSION NUMBER: 2003:737580 CAPLUS
DOCUMENT NUMBER: 139:261298
TITLE: Preparation of imidazole and benzimidazole derivatives that inhibit the interaction of ligands with RAGE
INVENTOR(S): Mjalli, Adnan M. M.; Andrews, Robert C.; Gopalaswamy, Ramesh; Hari, Anitha; Avor, Kwasi; Qabaja, Ghassan; Guo, Xiao-Chuan; Gupta, Suparna; Jones, David R.; Chen, Xin
PATENT ASSIGNEE(S): Transtech Pharma, Inc., USA
SOURCE: PCT Int. Appl., 462 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003075921	A2	20030918	WO 2003-US6749	20030305
WO 2003075921	A3	20031204		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2476594	AA	20030918	CA 2003-2476594	20030305
US 2004082542	A1	20040429	US 2003-382203	20030305
EP 1482931	A2	20041208	EP 2003-713918	20030305
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
PRIORITY APPLN. INFO.:			US 2002-361983P	P 20020305
			WO 2003-US6749	W 20030305

OTHER SOURCE(S): MARPAT 139:261298
GI



I



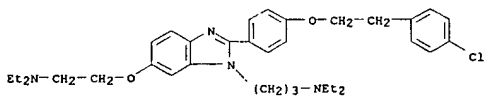
II

L4 ANSWER 23 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

AB Title compds. and analogs I [wherein A = O, S, or NR2; R1 and R2 = independently H or (un)substituted (hetero)aryl, (cyclo)alkyl, heterocyclyl, alkenyl, alkynyl, alkylene(hetero)aryl, alkylene heterocyclyl, alkylene cycloalkyl, etc.; R3 and R4 = independently H, halo, OH, CN, CONH2, CO2H, or (un)substituted (hetero)aryl, (cyclo)alkyl, heterocyclyl, alkenyl, alkynyl, alkylene(hetero)aryl, alkylene heterocyclyl, alkylene cycloalkyl, etc.; and pharmaceutically acceptable salts thereof] were prepared as modulators of the interaction between the receptor for advanced glycated end products (RAGE) and its ligands, such as advanced glycated end products (AGEs), S100/calgranulin/EN-RAGE, β-amyloid, and amphoterin. For example, 1-BOC-4-[2-(4-amino-3-butylaminophenoxy)ethyl]piperazine was condensed with 3-hydroxybenzaldehyde to give the hydroxybenzimidazole. Coupling with cyclohexylmethyl bromide in the presence of NaH in THF afforded II. In binding studies employing S100b as the RAGE ligand, five hundred fifty-one invention compds. exhibited binding with IC50 values of < 10 μM. Thus, I and their pharmaceutical compns. are useful for the management, treatment, control, or as an adjunct treatment for diseases in humans caused by RAGE, including acute and chronic inflammation, the development of diabetic late complications such as increased vascular permeability, nephropathy, atherosclerosis, and retinopathy, the development of Alzheimer's disease, erectile dysfunction, and tumor invasion and metastasis (no data).

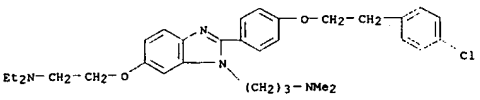
IT **603144-68-9P**, N-[3-[2-[4-[2-(4-Chlorophenyl)ethoxy]phenyl]-6-(2-diethylaminoethoxy)benzimidazol-1-yl]propyl]-N,N-diethylamine
603144-96-3P, N-[3-[2-[4-[2-(4-Chlorophenyl)ethoxy]phenyl]-6-(2-diethylaminoethoxy)benzimidazol-1-yl]propyl]-N,N-dimethylamine
603145-32-0P, N-[3-[2-[4-[2-(4-Chlorophenyl)ethoxy]phenyl]-6-(2-dimethylaminoethoxy)benzimidazol-1-yl]propyl]-N,N-dimethylamine
603145-82-0P, N-[2-[2-[4-[2-(4-Chlorophenyl)ethoxy]phenyl]-6-(2-diethylaminoethoxy)-1H-benzimidazol-1-yl]ethyl]-N,N-dimethylamine
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(RAGE modulator; preparation of imidazole and benzimidazole RAGE modulators for treatment of inflammation, diabetes, tumors, and other conditions)

RN 603144-68-9 CAPLUS
CN 1H-Benzimidazole-1-propanamine, 2-[4-[2-(4-chlorophenyl)ethoxy]phenyl]-6-[2-(diethylamino)ethoxy]-N,N-diethyl- (9CI) (CA INDEX NAME)

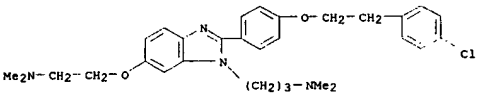


RN 603144-96-3 CAPLUS
CN 1H-Benzimidazole-1-propanamine, 2-[4-[2-(4-chlorophenyl)ethoxy]phenyl]-6-[2-(diethylamino)ethoxy]-N,N-dimethyl- (9CI) (CA INDEX NAME)

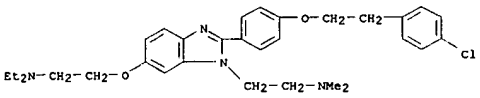
L4 ANSWER 23 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 603145-32-0 CAPLUS
CN 1H-Benzimidazole-1-propanamine, 2-[4-[2-(4-chlorophenyl)ethoxy]phenyl]-6-[2-(dimethylamino)ethoxy]-N,N-dimethyl- (9CI) (CA INDEX NAME)



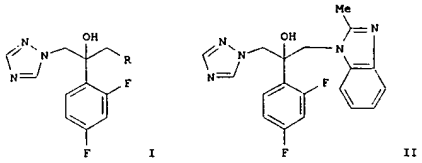
RN 603145-82-0 CAPLUS
CN 1H-Benzimidazole-1-ethanamine, 2-[4-[2-(4-chlorophenyl)ethoxy]phenyl]-6-[2-(diethylamino)ethoxy]-N,N-dimethyl- (9CI) (CA INDEX NAME)



L4 ANSWER 24 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 22 Aug 2003
ACCESSION NUMBER: 2003:656506 CAPLUS
DOCUMENT NUMBER: 139:197490
TITLE: Preparation of aryl(triazolyl)(imidazolyl)propanols as anti-fungal agents
INVENTOR(S): Chandavarkar, Mohan A.; Kulkarni, Vithal Madhavrao; Shivkumar, Pranavkumar; Shetty, Ravindra S.; Bapat, Uday Rajaram
PATENT ASSIGNEE(S): FDC Limited, India
SOURCE: PCT Int. Appl., 15 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003068142	A2	20030821	WO 2003-IN24	20030211
WO 2003068142	A3	20040805		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2474017	AA	20030821	CA 2003-2474017	20030211
GB 2400848	A1	20041027	GB 2004-16472	20030211
US 2005020653	A1	20050127	US 2004-503313	20040802
PRIORITY APPLN. INFO.:			IN 2002-MU125 A	20020212
			WO 2003-IN24 W	20030211

OTHER SOURCE(S): MARPAT 139:197490
GI

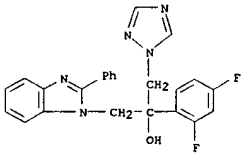


AB Title compds. I (R = (un)substituted 1-imidazolyl, 1-benzimidazolyl] were prepared for use as antifungal agents for both medical and agricultural applications. Thus, 2',4'-difluoro-2-(1,2,4-triazol-1-yl)acetophenone was converted to the oxirane and treated with 2-methylbenzimidazole to give the title compd. II which had a min. inhibitory concn. against Candida albicans of 6.25-12.5 μM.

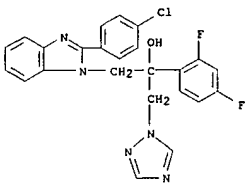
IT **583057-64-1P 583057-65-2P 583057-66-3P**
583057-69-6P 583057-71-0P
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of aryl(triazolyl)(imidazolyl)propanols as anti-fungal agents)

L4 ANSWER 24 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

RN 583057-64-1 CAPLUS
CN 1H-Benzimidazole-1-ethanol, α-(2,4-difluorophenyl)-2-phenyl-α-(1H-1,2,4-triazol-1-ylmethyl)- (9CI) (CA INDEX NAME)

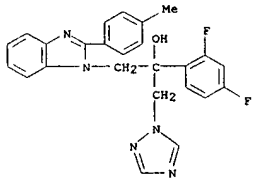


RN 583057-65-2 CAPLUS
CN 1H-Benzimidazole-1-ethanol, 2-(4-chlorophenyl)-α-(2,4-difluorophenyl)-α-(1H-1,2,4-triazol-1-ylmethyl)- (9CI) (CA INDEX NAME)

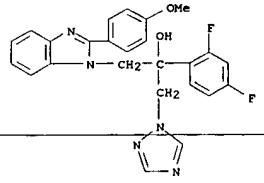


RN 583057-66-3 CAPLUS
CN 1H-Benzimidazole-1-ethanol, α-(2,4-difluorophenyl)-2-(4-methylphenyl)-α-(1H-1,2,4-triazol-1-ylmethyl)- (9CI) (CA INDEX NAME)

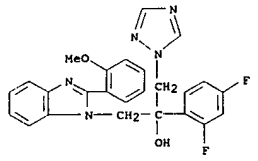
L4 ANSWER 24 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 583057-69-6 CAPLUS
CN 1H-Benzimidazole-1-ethanol, α-(2,4-difluorophenyl)-2-(4-methoxyphenyl)-α-(1H-1,2,4-triazol-1-ylmethyl)- (9CI) (CA INDEX NAME)



RN 583057-71-0 CAPLUS
CN 1H-Benzimidazole-1-ethanol, α-(2,4-difluorophenyl)-2-(2-methoxyphenyl)-α-(1H-1,2,4-triazol-1-ylmethyl)- (9CI) (CA INDEX NAME)



L4 ANSWER 25 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 15 Aug 2003
ACCESSION NUMBER: 2003:633749 CAPLUS
DOCUMENT NUMBER: 139:180347
TITLE: Preparation of histogranin-like peptides and non-peptides
INVENTOR(S): Lemaire, Simon; Bernatchez-Lemaire, Irma; Le, Hoang-Tanh
PATENT ASSIGNEE(S): University of Ottawa, Can.
SOURCE: PCT Int. Appl., 59 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003066673	A1	20030814	WO 2003-CA148	20030205
WO 2003066673	C1	20031204		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003176329	A1	20030918	US 2002-68905	20020207
CA 2475609	AA	20030814	CA 2003-2475609	20030205
EP 1481002	A1	20041201	EP 2003-737222	20030205
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
PRIORITY APPLN. INFO.:			US 2002-68905	A 20020207
			WO 2003-CA148	W 20030205

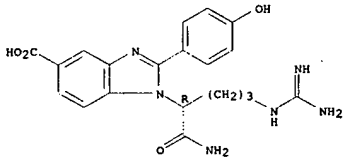
OTHER SOURCE(S): MARPAT 139:180347
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The invention relates to new basic amino acid derivs. I, II and III [A is H, alkyl, or hydroxyalkyl; B is guanidinoalkyl, 4-imidazolylalkyl, aminoalkyl, p-aminophenylalkyl, p-guanidinophenylalkyl, or 4-pyridinylalkyl; D is CO, CO-alkylene, or alkylene; E is a single bond or alkylene; Z is NH2, amino groups, OH, alkoxy, benzyloxy, or halobenzyl; R1-R5 are independently H or various substituents] and to their preparation and use in treatment of pain. The compds. have histogranin-like antinociceptive, morphine potentiating and COX-2 induction modulating activities. Thus, cyclo[Gly-(p-chloro)Phe-Tyr-D-Arg] (I-1) was prepared on an oxime resin using tert-butoxycarbonyl (Boc) protection and cleaved from the resin using intrachain aminolysis in the presence of AcOH and diisopropylethylamine. I-1 showed AD50 = 0.17 nmol/mouse and an analgesic potency ratio of 135 relative to histogranin in a mouse writhing pain assay.

L4 ANSWER 25 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
IT **573720-54-4P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of histogranin-like peptides and non-peptides)
RN 573720-54-4 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 1-[(1R)-1-(aminocarbonyl)-4-[(aminoiminomethyl)amino]butyl]-2-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

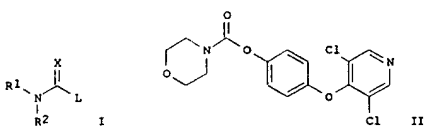


REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 26 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 27 Jun 2003
ACCESSION NUMBER: 2003:491188 CAPLUS
DOCUMENT NUMBER: 139:69057
TITLE: Preparation of carbamates as hormone-sensitive lipase inhibitors for the treatment of diabetes and related disorders
INVENTOR(S): Ebdrup, Soren; Hansen, Holger Claus; Vedso, Per; Cornelis De Jong, Johannes; Jacobsen, Poul
PATENT ASSIGNEE(S): Novo Nordisk A/S, Den.
SOURCE: PCT Int. Appl., 390 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

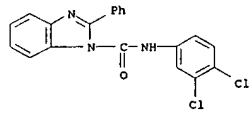
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003051842	A2	20030626	WO 2002-DK853	20021213
WO 2003051842	A3	20040603		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003166690	A1	20030904	US 2002-319212	20021213
US 2003166644	A1	20030904	US 2002-319885	20021213
EP 1458375	A2	20040922	EP 2002-787449	20021213
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
PRIORITY APPLN. INFO.:			DK 2001-1879	A 20011214
			DK 2002-645	A 20020430
			DK 2002-1000	A 20020627
			DK 2002-1562	A 20021011
			US 2002-346909P	P 20020103
			US 2002-384243P	P 20020530
			US 2002-393068P	P 20020628
			US 2002-418481P	P 20021015
			WO 2002-DK853	W 20021213

OTHER SOURCE(S): MARPAT 139:69057
GI



AB Title compds. I (wherein R1 = H or (un)substituted (cyclo)alkyl or alkenyl; R2 = (un)substituted (cyclo)alkyl, alkenyl, (hetero)aryl, or

L4 ANSWER 26 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
heterocyclyl; or NR1R2 = heterocyclyl; X = O or S; L = a hydrolyzable group; or pharmaceutically acceptable salts, solvates, tautomeric forms, stereoisomers, racemates, or polymorphs thereof] were prepd. as inhibitors of hormone-sensitive lipase (HSL). For example, esterification of morpholine-4-carbonyl chloride with 4-(3,5-dichloropyridin-4-yloxy)phenol in the presence of DABCO in THF gave II, which showed 88% inhibition of HSL at a concn. of 10 μM. Thus, I and pharmaceutical compns. thereof are useful for the treatment and/or prevention of medical disorders where a decreased activity of hormone-sensitive lipase is desirable, such as diabetes (no data).
IT **330560-59-3P**, N-(3,4-Dichlorophenyl)-2-phenylbenzimidazole-1-carboxamide
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(lipase inhibitor; preparation of carbamates as HSL inhibitors for treatment of diabetes and related disorders)
RN 330560-59-3 CAPLUS
CN 1H-Benzimidazole-1-carboxamide, N-(3,4-dichlorophenyl)-2-phenyl- (9CI) (CA INDEX NAME)



L4 ANSWER 27 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 27 Jun 2003
ACCESSION NUMBER: 2003:491187 CAPLUS
DOCUMENT NUMBER: 139:69056
TITLE: Preparation of carbamates as hormone-sensitive lipase inhibitors for the treatment of diabetes and related disorders
INVENTOR(S): Ebdrup, Soren; Cornelis De Jong, Johannes; Jacobsen, Poul; Hansen, Holger Claus; Vedso, Per
PATENT ASSIGNEE(S): Novo Nordisk A/S, Den.
SOURCE: PCT Int. Appl., 519 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

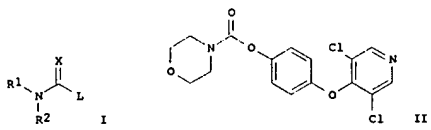
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003051841	A2	20030626	WO 2002-DK852	20021213
WO 2003051841	A3	20040624		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2468413	AA	20030626	CA 2002-2468413	20021213
US 2003166690	A1	20030904	US 2002-319212	20021213
US 2003166644	A1	20030904	US 2002-319885	20021213
EP 1458374	A2	20040922	EP 2002-787448	20021213
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				

PRIORITY APPLN. INFO.:

DK 2001-1879	A	20011214
DK 2002-645	A	20020430
DK 2002-1000	A	20020627
DK 2002-1562	A	20021011
US 2002-346909P	P	20020103
US 2002-384243P	P	20020530
US 2002-393068P	P	20020628
US 2002-418481P	P	20021015
WO 2002-DK852	W	20021213

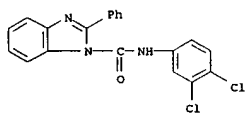
OTHER SOURCE(S): MARPAT 139:69056
GI

L4 ANSWER 27 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



I II

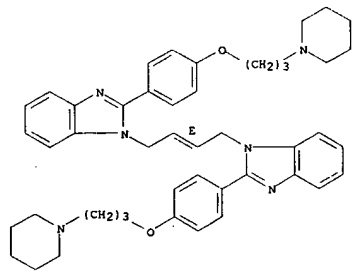
AB Title compds. I [wherein R1 = H or (un)substituted (cyclo)alkyl or alkenyl; R2 = (un)substituted (cyclo)alkyl, alkenyl, (hetero)aryl, or heterocyclyl; or NR1R2 = heterocyclyl; X = O or S; L = a hydrolyzable group; or pharmaceutically acceptable salts, solvates, tautomeric forms, stereoisomers, racemates, or polymorphs thereof] were prepared as inhibitors of hormone-sensitive lipase (HSL). For example, esterification of morpholine-4-carbonyl chloride with 4-(3,5-dichloropyridin-4-yloxy)phenol in the presence of DABCO in THF gave II, which showed 88% inhibition of HSL at a concentration of 10 μM. Thus, I and pharmaceutical compns. thereof are useful for the treatment and/or prevention of medical disorders where a decreased activity of hormone-sensitive lipase is desirable, such as diabetes (no data).
IT **330560-59-3P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(lipase inhibitor; preparation of carbamates as HSL inhibitors for treatment of diabetes and related disorders)
RN 330560-59-3 CAPLUS
CN 1H-Benzimidazole-1-carboxamide, N-(3,4-dichlorophenyl)-2-phenyl- (9CI) (CA INDEX NAME)



L4 ANSWER 28 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 22 May 2003
ACCESSION NUMBER: 2003:392461 CAPLUS
DOCUMENT NUMBER: 139:301875
TITLE: Behavioral response profiles following drug challenge with dopamine receptor subtype agonists and antagonists in developing rat
AUTHOR(S): Sobrian, Sonya K.; Jones, Barbara L.; Varghese, Shiny; Holson, R. Robert
CORPORATE SOURCE: Department of Pharmacology, Howard University College of Medicine, Washington, DC, 20059, USA
SOURCE: Neurotoxicology and Teratology (2003), 25(3), 311-328
CODEN: NETEEC; ISSN: 0892-0362
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB As part of an investigation into the effects of gestational ethanol (ETOH) exposure on the developing dopamine (DA) system, pregnant Sprague-Dawley rats were exposed to one of three conditions: ETOH, pair-fed (PF) to the ETOH group, or ad libitum lab chow controls (LC). In this paper we report behavioral drug challenge effects for offspring of the two control groups (PF and LC). Male and female pups between postnatal days (PNDs) 21 and 23 in age were exposed to one of three i.p./s.c. doses of one of eight drugs chosen to assess the functional status of the DA D1, D2, and D3 receptor subtype, or a saline control. Agonists were SKF 38393, apomorphine (APO), quinpirole (QUIN), and 7-hydroxy-N,N-di-n-propyl-2-amino-tetralin [7-OH-DPAT (DPAT)]; antagonists were spiperone (SPIP), SCH 23390, and two recently developed D3 antagonists nafadotride (NAF) and PD 152255. Immediately following drug injection, pups were placed in observation cages, where eight behaviors (square entries, grooming, circling, rearing, sniffing, head and oral movements, and yawning) were scored at 3-min intervals for 30 min. Classic behavioral profiles were generally obtained for the high-dose mixed agonists APO, DPAT, and QUIN, which potently increased square entries, rearing, and sniffing, while reducing grooming and head movements. However, low-dose APO had no effect on behavior. The D1 agonist, SKF 38393, had a strikingly different behavioral profile; it had no effect on square entries at any dose, while increasing grooming and sniffing at the medium dose. The D1 antagonist, SCH 23390, profoundly decreased all behaviors except oral and head movements, especially at high doses. In contrast, the effects of the D2 antagonist, SPIP, were limited to increasing sniffing at the medium dose. The two putative D3 antagonists, NAF and PD 152255, presented strikingly different profiles. NAF induced a pattern of behavioral suppression that resembled the profile of high-dose SCH, while high-dose PD 152255 stimulated behavior. The failure of low-dose APO to have any effect on behavior suggests that the D2 autoreceptor is not functional in preweanling rats. This hypothesis is further supported by the lack of behavioral suppression seen with low-dose QUIN and DPAT. Failure of NAF to produce behavioral activation at low doses and the stimulatory effects seen with PD 152255 suggests that either the D3 autoreceptor, the postsynaptic D3 receptor, or both are not fully functional at this age as well.
IT **164917-23-1**, PD 152255
RL: PAC (Pharmacological activity); BIOL (Biological study)
(behavioral response profiles following drug challenge with dopamine receptor subtype agonists and antagonists in developing rat)
RN 164917-23-1 CAPLUS
CN 1H-Benzimidazole, 1,1'-(2E)-2-butene-1,4-diylbis[2-[4-[3-(1-piperidinyl)propoxy]phenyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

L4 ANSWER 28 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

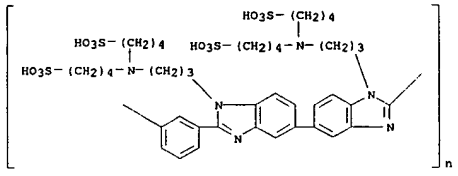


REFERENCE COUNT: 117 THERE ARE 117 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 29 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 09 May 2003
ACCESSION NUMBER: 2003:353857 CAPLUS
DOCUMENT NUMBER: 138:356242
TITLE: Solid electrolyte material
INVENTOR(S): Taniguchi, Hiromi; Rikukawa, Masahiro
PATENT ASSIGNEE(S): Toyota Motor Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003132908	A2	20030509	JP 2001-327447	20011025
PRIORITY APPLN. INFO.:			JP 2001-327447	20011025

AB The electrolyte material, especially for a fuel cell, is obtained by binding a side chain having a plurality of ion exchange groups to a principal chain. Preferably, the ion exchange groups contain ≥1 group selected from sulfonate, phosphonate, phosphate, borate, and carboxylate groups.
IT **521084-75-3P**
RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(solid electrolyte materials containing ion exchange groups for fuel cells)
RN 521084-75-3 CAPLUS
CN Poly[[1,1'-bis[3-[bis(4-sulfobutyl)amino]propyl][5,5'-bi-1H-benzimidazole]-2,2'-diyl]-1,3-phenylene] (9CI) (CA INDEX NAME)



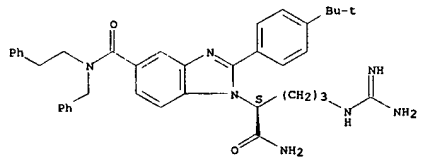
L4 ANSWER 30 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 20 Mar 2003
ACCESSION NUMBER: 2003:217986 CAPLUS
DOCUMENT NUMBER: 138:238445
TITLE: Melanocortin receptor-3 ligands for treating sexual dysfunction
INVENTOR(S): Dines, Kevin C.; Gahman, Timothy C.; Girten, Beverly E.; Hitchin, Douglas L.; Holme, Kevin R.; Lang, Hengyuan; Slivka, Sandra R.; Watson-Straughan, Karen J.; Tuttle, Ronald R.; Pei, Yazhong
PATENT ASSIGNEE(S): Lion Bioscience AG, Germany
SOURCE: U.S., 25 pp., Cont.-in-part of U.S. Ser. No. 364,825, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6534503	B1	20030318	US 2000-615479	20000713
US 6127381	A	20001003	US 1999-301391	19990428
US 6608082	B1	20030819	US 1999-306686	19990506
US 6284735	B1	20010904	US 1999-356386	19990716
PRIORITY APPLN. INFO.:			US 1998-83368P P	19980428
			US 1999-301391 A1	19990428
			US 1999-306686 A2	19990506
			US 1999-356386 A2	19990716
			US 1999-364825 B2	19990730
			US 1999-401004 A2	19990921

OTHER SOURCE(S): MARPAT 138:238445
AB Methods are described for treating sexual dysfunction, such as erectile dysfunction or sexual arousal disorder, with peptides having the sequence -D-Phe-Arg-D-Trp-. A particularly useful compound is HP-228 (Ac-Nle-Gln-His-D-Phe-Arg-D-Trp-Gly-NH2), which was prepared by the solid-phase method and assayed for biol. activity. The invention also provides methods for selecting melanocortin receptor-3 ligands by determining whether a compound modulates the activity of MC-3 as an agonist or antagonist. These methods can be used to screen compound libraries (e.g., benzimidazole derivs., which are claimed) for ligands to treat MC-3-associated conditions.
IT **321180-43-2P 321180-45-4P 321180-47-6P**
321180-49-8P 321180-51-2P 321180-53-4P
321180-55-6P 321180-57-8P 321180-59-0P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(benzimidazole combinatorial library for treating melanocortin receptor-3 associated conditions)
RN 321180-43-2 CAPLUS
CN 1H-Benzimidazole-1-acetamide, α-[3-[(aminoiminomethyl)amino]propyl]-2-[4-(1,1-dimethylethyl)phenyl]-5-[[(2-phenylethyl)(phenylmethyl)amino]carbonyl]-, (αS)- (9CI) (CA INDEX NAME)

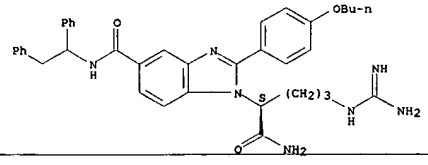
Absolute stereochemistry.

L4 ANSWER 30 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



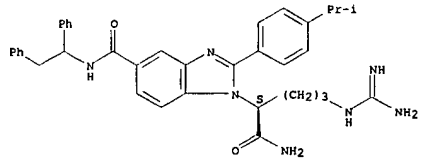
RN 321180-45-4 CAPLUS
CN 1H-Benzimidazole-1-acetamide, α-[3-[(aminoiminomethyl)amino]propyl]-2-(4-butoxyphenyl)-5-[[(1,2-diphenylethyl)amino]carbonyl]-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 321180-47-6 CAPLUS
CN 1H-Benzimidazole-1-acetamide, α-[3-[(aminoiminomethyl)amino]propyl]-5-[[(1,2-diphenylethyl)amino]carbonyl]-2-[4-(1-methylethyl)phenyl]-, (αS)- (9CI) (CA INDEX NAME)

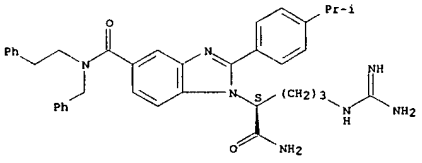
Absolute stereochemistry.



RN 321180-49-8 CAPLUS
CN 1H-Benzimidazole-1-acetamide, α-[3-[(aminoiminomethyl)amino]propyl]-2-[4-(1-methylethyl)phenyl]-5-[[(2-phenylethyl)(phenylmethyl)amino]carbonyl]-, (αS)- (9CI) (CA INDEX NAME)

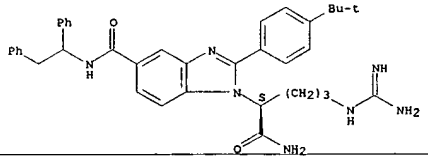
Absolute stereochemistry.

L4 ANSWER 30 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



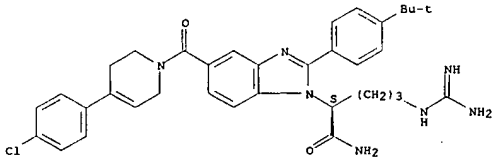
RN 321180-51-2 CAPLUS
CN 1H-Benzimidazole-1-acetamide, α-[3-[(aminoiminomethyl)amino]propyl]-2-[4-(1,1-dimethylethyl)phenyl]-5-[[(1,2-diphenylethyl)amino]carbonyl]-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 321180-53-4 CAPLUS
CN 1H-Benzimidazole-1-acetamide, α-[3-[(aminoiminomethyl)amino]propyl]-5-[[4-(4-chlorophenyl)-3,6-dihydro-1(2H)-pyridinyl]carbonyl]-2-[4-(1,1-dimethylethyl)phenyl]-, (αS)- (9CI) (CA INDEX NAME)

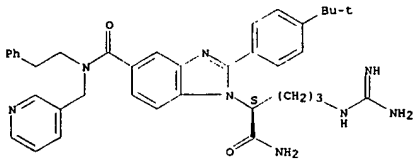
Absolute stereochemistry.



RN 321180-55-6 CAPLUS
CN 1H-Benzimidazole-1-acetamide, α-[3-[(aminoiminomethyl)amino]propyl]-2-[4-(1,1-dimethylethyl)phenyl]-5-[[(2-phenylethyl)(3-pyridinylmethyl)amino]carbonyl]-, (αS)- (9CI) (CA INDEX NAME)

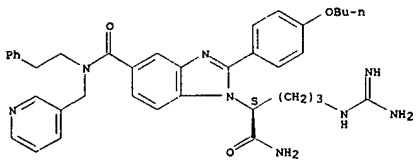
Absolute stereochemistry.

L4 ANSWER 30 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



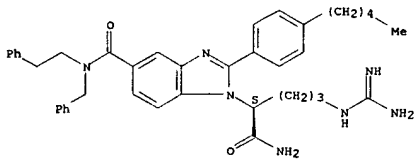
RN 321180-57-8 CAPLUS
CN 1H-Benzimidazole-1-acetamide, α-[3-[(aminoiminomethyl)amino]propyl]-2-(4-butoxyphenyl)-5-[[(2-phenylethyl)(3-pyridinylmethyl)amino]carbonyl]-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



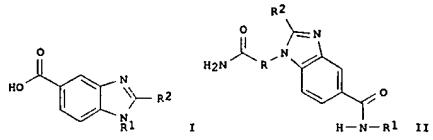
RN 321180-59-0 CAPLUS
CN 1H-Benzimidazole-1-acetamide, α-[3-[(aminoiminomethyl)amino]propyl]-2-(4-pentylphenyl)-5-[[(2-phenylethyl)(phenylmethyl)amino]carbonyl]-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 71 THERE ARE 71 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 20 Mar 2003
ACCESSION NUMBER: 2003:215662 CAPLUS
DOCUMENT NUMBER: 139:133505
TITLE: Solid-phase synthesis of benzimidazole libraries biased for RNA targets
AUTHOR(S): Vourloumis, Dionisios; Takahashi, Masayuki; Simonsen, Klaus B.; Ayida, Benjamin K.; Barluenga, Sofia; Winters, Geoffrey C.; Hermann, Thomas
CORPORATE SOURCE: Department of Medicinal Chemistry, Anadys Pharmaceuticals, Inc., San Diego, CA, 92121, USA
SOURCE: Tetrahedron Letters (2003), 44(14), 2807-2811 CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 139:133505
GI



AB An efficient and highly versatile synthesis of two libraries I (R1 = 3-pyridylmethyl, CH2CH2NMe2, N-morpholinylethyl, etc., R2 = 3-O2NC6H4, 3-pyridyl, 2-O2N-3-ClC6H3, etc.) and II [R = 4-C6H4CH2, (CH2)5, CH2, etc., R1 = CH2CH2CO2Et, N-morpholinylethyl, 5-methyl-2-furylmethyl, etc., R2 = 2-Cl-6-O2NC6H3, 3-thienyl, 2-Cl-5-O2N-C6H3, etc.; R2 = cyclohexyl, Et, PhCH2] based on the privileged benzimidazole scaffold is described. Our design is aimed at obtaining mols., biased for binding to RNA targets, by incorporating functionalities, which are frequently found in natural RNA-ligands. The library construction was realized with the use of SPOS (solid-phase organic synthesis) using either the Wang resin or the Rink amide resin in high average yields and purity. Monitoring and quantitation of intermediates and final products were performed by the use of NMR spectroscopy using DMFu as an internal standard

IT **318477-17-7P 318477-18-8P 318482-80-3P**
318482-84-7P 318482-85-8P 318970-64-8P
569355-44-8P 569355-75-5P 569355-77-7P
569355-78-8P 569355-79-9P 569355-80-2P
569355-82-4P 569355-83-5P 569355-89-1P
569355-90-4P 569355-92-6P 569355-93-7P
569355-94-8P 569355-95-9P 569355-97-1P
569355-98-2P 569355-99-3P 569356-00-9P
569356-02-1P 569356-03-2P 569356-72-5P
569356-73-6P 569356-74-7P 569356-75-8P
569356-76-9P 569356-77-0P 569356-79-2P
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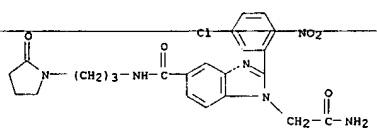
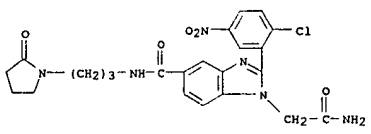
569356-84-9P 569356-85-0P 569356-86-1P

L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
569356-87-2P 569356-89-4P 569356-90-7P
569356-91-8P 569356-92-9P 569356-94-1P
569356-95-2P 569356-96-3P 569356-97-4P
569356-99-6P 569357-00-2P 569357-01-3P
569357-02-4P 569357-03-5P 569357-05-7P
569357-06-8P 569357-07-9P 569357-08-0P
569357-10-4P 569357-11-5P 569357-12-6P
569357-13-7P 569357-15-9P 569357-16-0P
569357-17-1P 569357-18-2P 569357-20-6P
569357-21-7P 569357-22-8P 569357-23-9P
569357-25-1P 569357-26-2P 569358-38-9P
569358-39-0P 569358-40-3P 569358-41-4P
569358-42-5P 569358-43-6P 569358-45-8P
569358-46-9P 569358-47-0P 569358-48-1P
569358-50-5P 569358-51-6P 569358-52-7P
569358-53-8P 569358-55-0P 569358-56-1P
569358-57-2P 569358-58-3P 569358-59-4P
569358-61-8P 569358-62-9P 569358-63-0P
569358-64-1P 569358-66-3P 569358-67-4P
569358-68-5P 569358-69-6P 569358-71-0P
569358-72-1P
RL: CPN (Combinatorial preparation); CMBI (Combinatorial study); PREP (Preparation)
(solid-phase synthesis of benzimidazole libraries biased for RNA binding using Wang resin or Rink amide resin)
RN 318477-17-7 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(5-chloro-2-nitrophenyl)-5-[[[3-(2-oxo-1-pyrrolidinyl)propyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

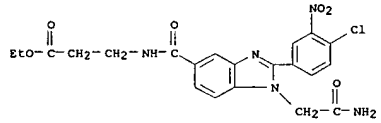


RN 318477-18-8 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(2-chloro-5-nitrophenyl)-5-[[[3-(2-oxo-1-pyrrolidinyl)propyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

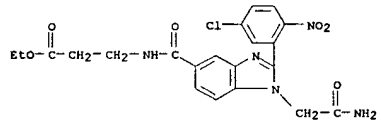


RN 318482-80-3 CAPLUS
CN β-Alanine, N-[[1-(2-amino-2-oxoethyl)-2-(4-chloro-3-nitrophenyl)-1H-benzimidazol-5-yl]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

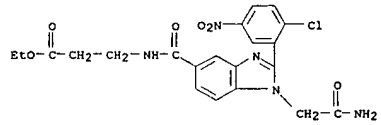
L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



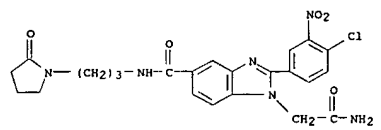
RN 318482-84-7 CAPLUS
CN β-Alanine, N-[[1-(2-amino-2-oxoethyl)-2-(5-chloro-2-nitrophenyl)-1H-benzimidazol-5-yl]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)



RN 318482-85-8 CAPLUS
CN β-Alanine, N-[[1-(2-amino-2-oxoethyl)-2-(2-chloro-5-nitrophenyl)-1H-benzimidazol-5-yl]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

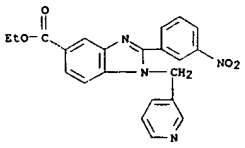


RN 318970-64-8 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(4-chloro-3-nitrophenyl)-5-[[[3-(2-oxo-1-pyrrolidinyl)propyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

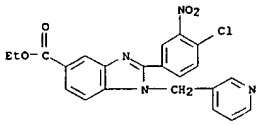


RN 569355-44-8 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(3-nitrophenyl)-1-(3-pyridinylmethyl)-, ethyl ester (9CI) (CA INDEX NAME)

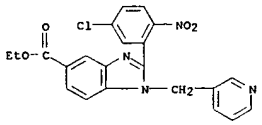
L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 569355-75-5 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(4-chloro-3-nitrophenyl)-1-(3-pyridinylmethyl)-, ethyl ester (9CI) (CA INDEX NAME)

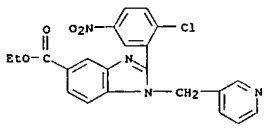


RN 569355-77-7 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(5-chloro-2-nitrophenyl)-1-(3-pyridinylmethyl)-, ethyl ester (9CI) (CA INDEX NAME)

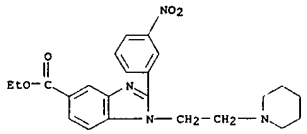


RN 569355-78-8 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(2-chloro-5-nitrophenyl)-1-(3-pyridinylmethyl)-, ethyl ester (9CI) (CA INDEX NAME)

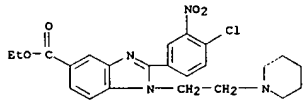
L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



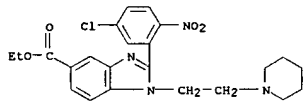
RN 569355-79-9 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(3-nitrophenyl)-1-[2-(1-piperidinyl)ethyl]-, ethyl ester (9CI) (CA INDEX NAME)



RN 569355-80-2 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(4-chloro-3-nitrophenyl)-1-[2-(1-piperidinyl)ethyl]-, ethyl ester (9CI) (CA INDEX NAME)

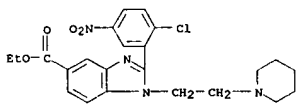


RN 569355-82-4 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(5-chloro-2-nitrophenyl)-1-[2-(1-piperidinyl)ethyl]-, ethyl ester (9CI) (CA INDEX NAME)

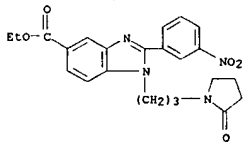


RN 569355-83-5 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(2-chloro-5-nitrophenyl)-1-[2-(1-

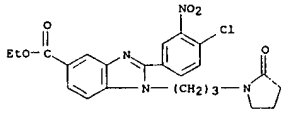
L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
piperidinyl)ethyl]-, ethyl ester (9CI) (CA INDEX NAME)



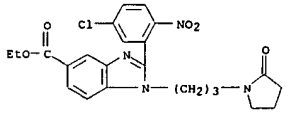
RN 569355-89-1 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(3-nitrophenyl)-1-[3-(2-oxo-1-pyrrolidinyl)propyl]-, ethyl ester (9CI) (CA INDEX NAME)



RN 569355-90-4 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(4-chloro-3-nitrophenyl)-1-[3-(2-oxo-1-pyrrolidinyl)propyl]-, ethyl ester (9CI) (CA INDEX NAME)

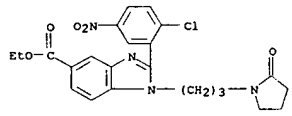


RN 569355-92-6 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(5-chloro-2-nitrophenyl)-1-[3-(2-oxo-1-pyrrolidinyl)propyl]-, ethyl ester (9CI) (CA INDEX NAME)

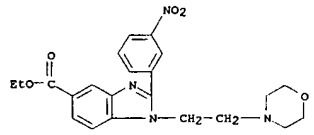


RN 569355-93-7 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(2-chloro-5-nitrophenyl)-1-[3-(2-oxo-1-pyrrolidinyl)propyl]-, ethyl ester (9CI) (CA INDEX NAME)

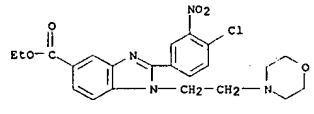
L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



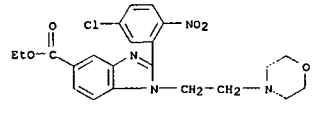
RN 569355-94-8 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 1-[2-(4-morpholinyl)ethyl]-2-(3-nitrophenyl)-, ethyl ester (9CI) (CA INDEX NAME)



RN 569355-95-9 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(4-chloro-3-nitrophenyl)-1-[2-(4-morpholinyl)ethyl]-, ethyl ester (9CI) (CA INDEX NAME)

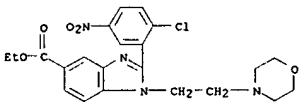


RN 569355-97-1 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(5-chloro-2-nitrophenyl)-1-[2-(4-morpholinyl)ethyl]-, ethyl ester (9CI) (CA INDEX NAME)

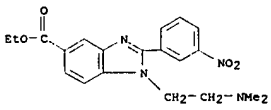


RN 569355-98-2 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(2-chloro-5-nitrophenyl)-1-[2-(4-morpholinyl)ethyl]-, ethyl ester (9CI) (CA INDEX NAME)

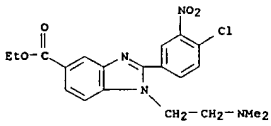
L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



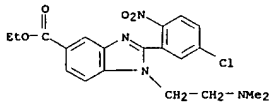
RN 569355-99-3 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 1-[2-(dimethylamino)ethyl]-2-(3-nitrophenyl)-, ethyl ester (9CI) (CA INDEX NAME)



RN 569356-00-9 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(4-chloro-3-nitrophenyl)-1-[2-(dimethylamino)ethyl]-, ethyl ester (9CI) (CA INDEX NAME)



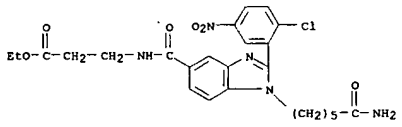
RN 569356-02-1 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(5-chloro-2-nitrophenyl)-1-[2-(dimethylamino)ethyl]-, ethyl ester (9CI) (CA INDEX NAME)



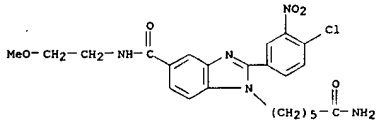
RN 569356-03-2 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(2-chloro-5-nitrophenyl)-1-[2-(dimethylamino)ethyl]-, ethyl ester (9CI) (CA INDEX NAME)

L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

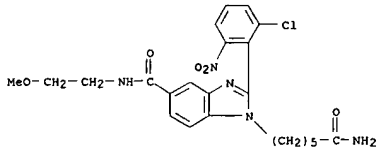
RN 569356-75-8 CAPLUS
CN β-Alanine, N-[[1-(6-amino-6-oxohexyl)-2-(2-chloro-5-nitrophenyl)-1H-benzimidazol-5-yl]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)



RN 569356-76-9 CAPLUS
CN 1H-Benzimidazole-1-hexanamide, 2-(4-chloro-3-nitrophenyl)-5-[[(2-methoxyethyl)amino]carbonyl]- (9CI) (CA INDEX NAME)

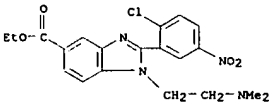


RN 569356-77-0 CAPLUS
CN 1H-Benzimidazole-1-hexanamide, 2-(2-chloro-6-nitrophenyl)-5-[[(2-methoxyethyl)amino]carbonyl]- (9CI) (CA INDEX NAME)

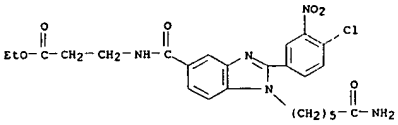


RN 569356-79-2 CAPLUS
CN 1H-Benzimidazole-1-hexanamide, 2-(5-chloro-2-nitrophenyl)-5-[[(2-methoxyethyl)amino]carbonyl]- (9CI) (CA INDEX NAME)

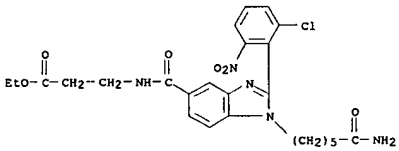
L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



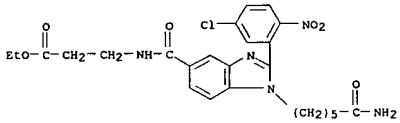
RN 569356-72-5 CAPLUS
CN β-Alanine, N-[[1-(6-amino-6-oxohexyl)-2-(4-chloro-3-nitrophenyl)-1H-benzimidazol-5-yl]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)



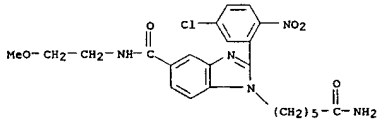
RN 569356-73-6 CAPLUS
CN β-Alanine, N-[[1-(6-amino-6-oxohexyl)-2-(2-chloro-6-nitrophenyl)-1H-benzimidazol-5-yl]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)



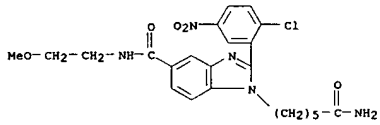
RN 569356-74-7 CAPLUS
CN β-Alanine, N-[[1-(6-amino-6-oxohexyl)-2-(5-chloro-2-nitrophenyl)-1H-benzimidazol-5-yl]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)



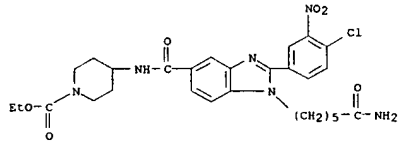
L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 569356-80-5 CAPLUS
CN 1H-Benzimidazole-1-hexanamide, 2-(2-chloro-5-nitrophenyl)-5-[[(2-methoxyethyl)amino]carbonyl]- (9CI) (CA INDEX NAME)

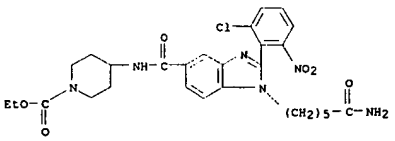


RN 569356-81-6 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-[[[1-(6-amino-6-oxohexyl)-2-(4-chloro-3-nitrophenyl)-1H-benzimidazol-5-yl]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)

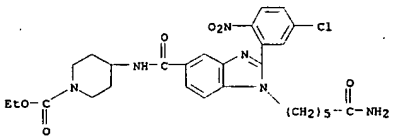


RN 569356-82-7 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-[[[1-(6-amino-6-oxohexyl)-2-(2-chloro-6-nitrophenyl)-1H-benzimidazol-5-yl]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)

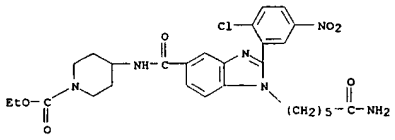
L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 569356-84-9 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-[[[1-(6-amino-6-oxohexyl)-2-(5-chloro-2-nitrophenyl)-1H-benzimidazol-5-yl]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)

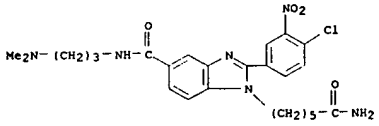


RN 569356-85-0 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-[[[1-(6-amino-6-oxohexyl)-2-(2-chloro-5-nitrophenyl)-1H-benzimidazol-5-yl]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)

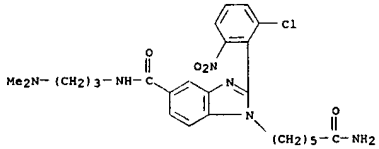


RN 569356-86-1 CAPLUS
CN 1H-Benzimidazole-1-hexanamide, 2-(4-chloro-3-nitrophenyl)-5-[[[3-(dimethylamino)propyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

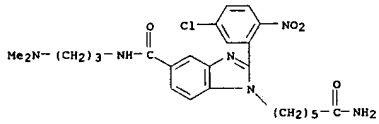
L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 569356-87-2 CAPLUS
CN 1H-Benzimidazole-1-hexanamide, 2-(2-chloro-6-nitrophenyl)-5-[[[3-(dimethylamino)propyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

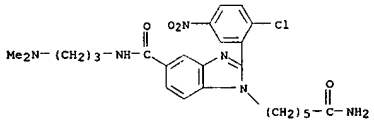


RN 569356-89-4 CAPLUS
CN 1H-Benzimidazole-1-hexanamide, 2-(5-chloro-2-nitrophenyl)-5-[[[3-(dimethylamino)propyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

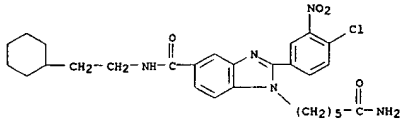


RN 569356-90-7 CAPLUS
CN 1H-Benzimidazole-1-hexanamide, 2-(2-chloro-5-nitrophenyl)-5-[[[3-(dimethylamino)propyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

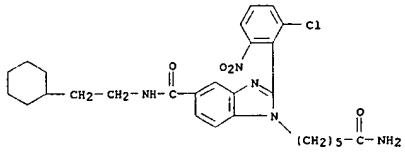
L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



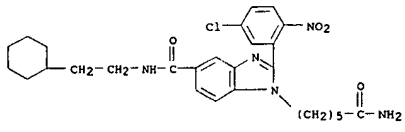
RN 569356-91-8 CAPLUS
CN 1H-Benzimidazole-1-hexanamide, 2-(4-chloro-3-nitrophenyl)-5-[[(2-cyclohexylethyl)amino]carbonyl]- (9CI) (CA INDEX NAME)



RN 569356-92-9 CAPLUS
CN 1H-Benzimidazole-1-hexanamide, 2-(2-chloro-6-nitrophenyl)-5-[[(2-cyclohexylethyl)amino]carbonyl]- (9CI) (CA INDEX NAME)

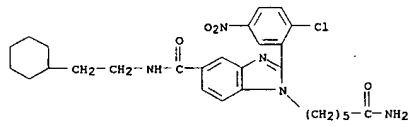


RN 569356-94-1 CAPLUS
CN 1H-Benzimidazole-1-hexanamide, 2-(5-chloro-2-nitrophenyl)-5-[[(2-cyclohexylethyl)amino]carbonyl]- (9CI) (CA INDEX NAME)

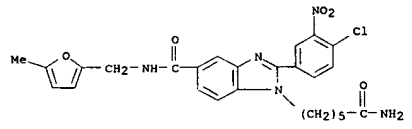


RN 569356-95-2 CAPLUS

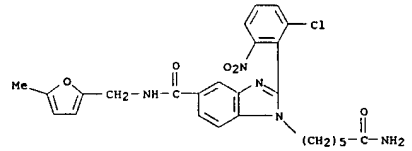
L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CN 1H-Benzimidazole-1-hexanamide, 2-(2-chloro-5-nitrophenyl)-5-[[(2-cyclohexylethyl)amino]carbonyl]- (9CI) (CA INDEX NAME)



RN 569356-96-3 CAPLUS
CN 1H-Benzimidazole-1-hexanamide, 2-(4-chloro-3-nitrophenyl)-5-[[[(5-methyl-2-furanyl)methyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

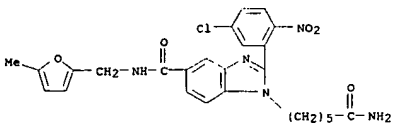


RN 569356-97-4 CAPLUS
CN 1H-Benzimidazole-1-hexanamide, 2-(2-chloro-6-nitrophenyl)-5-[[[(5-methyl-2-furanyl)methyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

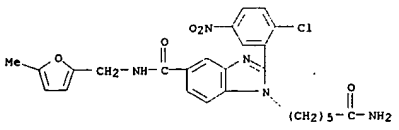


RN 569356-99-6 CAPLUS
CN 1H-Benzimidazole-1-hexanamide, 2-(5-chloro-2-nitrophenyl)-5-[[[(5-methyl-2-furanyl)methyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

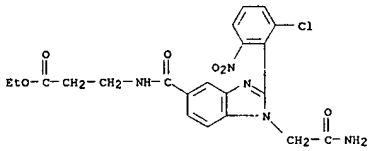
L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 569357-00-2 CAPLUS
CN 1H-Benzimidazole-1-hexanamide, 2-(2-chloro-5-nitrophenyl)-5-[[[(5-methyl-2-furanyl)methyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

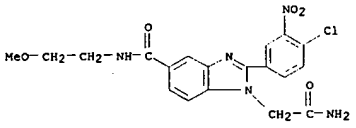


RN 569357-01-3 CAPLUS
CN β-Alanine, N-[[1-(2-amino-2-oxoethyl)-2-(2-chloro-6-nitrophenyl)-1H-benzimidazol-5-yl]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

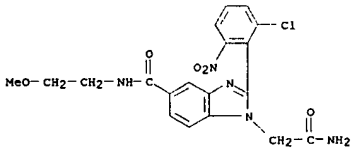


RN 569357-02-4 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(4-chloro-3-nitrophenyl)-5-[[(2-methoxyethyl)amino]carbonyl]- (9CI) (CA INDEX NAME)

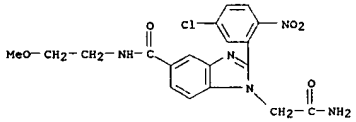
L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 569357-03-5 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(2-chloro-6-nitrophenyl)-5-[[(2-methoxyethyl)amino]carbonyl]- (9CI) (CA INDEX NAME)

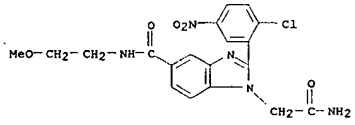


RN 569357-05-7 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(5-chloro-2-nitrophenyl)-5-[[(2-methoxyethyl)amino]carbonyl]- (9CI) (CA INDEX NAME)

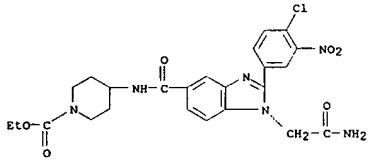


RN 569357-06-8 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(2-chloro-5-nitrophenyl)-5-[[(2-methoxyethyl)amino]carbonyl]- (9CI) (CA INDEX NAME)

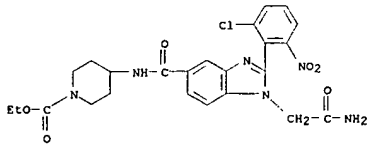
L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 569357-07-9 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-[[[1-(2-amino-2-oxoethyl)-2-(4-chloro-3-nitrophenyl)-1H-benzimidazol-5-yl]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)

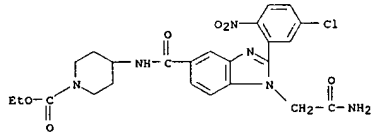


RN 569357-08-0 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-[[[1-(2-amino-2-oxoethyl)-2-(2-chloro-6-nitrophenyl)-1H-benzimidazol-5-yl]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)

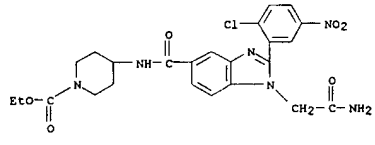


RN 569357-10-4 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-[[[1-(2-amino-2-oxoethyl)-2-(5-chloro-2-nitrophenyl)-1H-benzimidazol-5-yl]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)

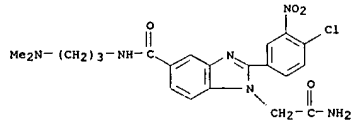
L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 569357-11-5 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-[[[1-(2-amino-2-oxoethyl)-2-(2-chloro-5-nitrophenyl)-1H-benzimidazol-5-yl]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)

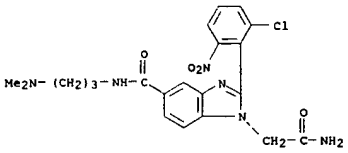


RN 569357-12-6 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(4-chloro-3-nitrophenyl)-5-[[[3-(dimethylamino)propyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

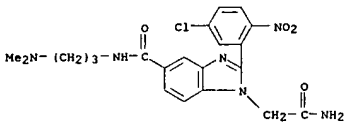


RN 569357-13-7 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(2-chloro-6-nitrophenyl)-5-[[[3-(dimethylamino)propyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

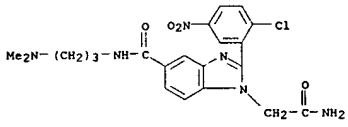
L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 569357-15-9 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(5-chloro-2-nitrophenyl)-5-[[[3-(dimethylamino)propyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

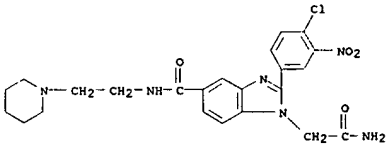


RN 569357-16-0 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(2-chloro-5-nitrophenyl)-5-[[[3-(dimethylamino)propyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

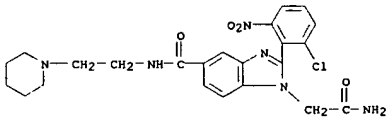


RN 569357-17-1 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(4-chloro-3-nitrophenyl)-5-[[[2-(1-piperidinyl)ethyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

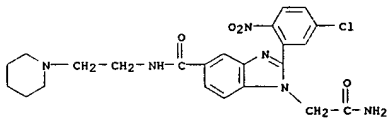
L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



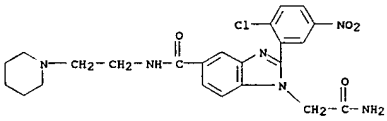
RN 569357-18-2 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(2-chloro-6-nitrophenyl)-5-[[[2-(1-piperidinyl)ethyl]amino]carbonyl]- (9CI) (CA INDEX NAME)



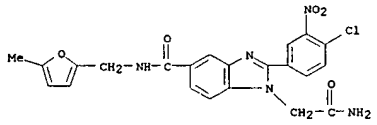
RN 569357-20-6 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(5-chloro-2-nitrophenyl)-5-[[[2-(1-piperidinyl)ethyl]amino]carbonyl]- (9CI) (CA INDEX NAME)



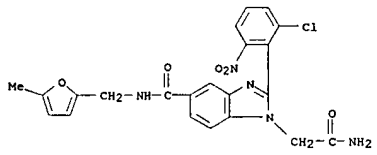
RN 569357-21-7 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(2-chloro-5-nitrophenyl)-5-[[[2-(1-piperidinyl)ethyl]amino]carbonyl]- (9CI) (CA INDEX NAME)



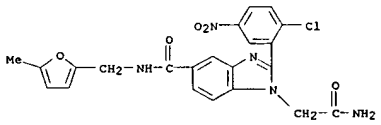
L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
RN 569357-22-8 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(4-chloro-3-nitrophenyl)-5-[[[(5-methyl-2-furanyl)methyl]amino]carbonyl]- (9CI) (CA INDEX NAME)



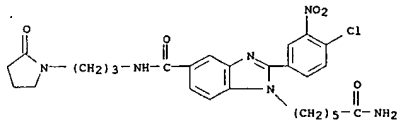
RN 569357-23-9 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(2-chloro-6-nitrophenyl)-5-[[[(5-methyl-2-furanyl)methyl]amino]carbonyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

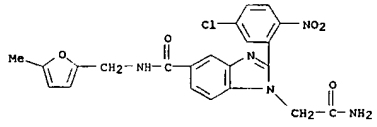


RN 569358-38-9 CAPLUS
CN 1H-Benzimidazole-1-hexanamide, 2-(4-chloro-3-nitrophenyl)-5-[[[3-(2-oxo-1-pyrrolidinyl)propyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

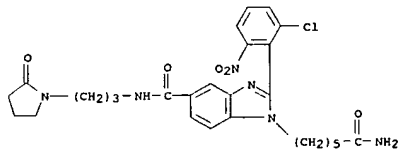


RN 569358-39-0 CAPLUS
CN 1H-Benzimidazole-1-hexanamide, 2-(2-chloro-6-nitrophenyl)-5-[[[3-(2-oxo-1-pyrrolidinyl)propyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

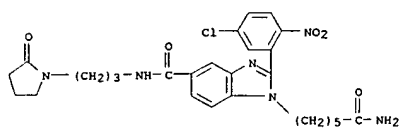
RN 569357-25-1 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(5-chloro-2-nitrophenyl)-5-[[[(5-methyl-2-furanyl)methyl]amino]carbonyl]- (9CI) (CA INDEX NAME)



RN 569357-26-2 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(2-chloro-5-nitrophenyl)-5-[[[(5-methyl-2-furanyl)methyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

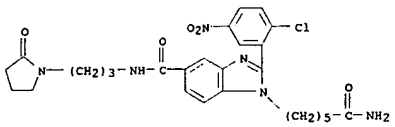


RN 569358-40-3 CAPLUS
CN 1H-Benzimidazole-1-hexanamide, 2-(5-chloro-2-nitrophenyl)-5-[[[3-(2-oxo-1-pyrrolidinyl)propyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

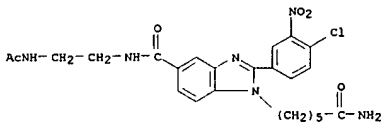


RN 569358-41-4 CAPLUS

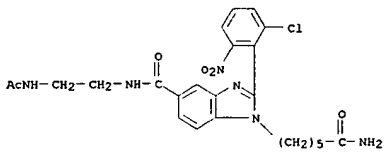
L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CN 1H-Benzimidazole-1-hexanamide, 2-(2-chloro-5-nitrophenyl)-5-[[[3-(2-oxo-1-pyrrolidinyl)propyl]amino]carbonyl]- (9CI) (CA INDEX NAME)



RN 569358-42-5 CAPLUS
CN 1H-Benzimidazole-1-hexanamide, 5-[[[2-(acetylamino)ethyl]amino]carbonyl]-2-(4-chloro-3-nitrophenyl)- (9CI) (CA INDEX NAME)

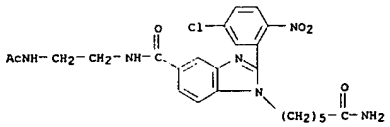


RN 569358-43-6 CAPLUS
CN 1H-Benzimidazole-1-hexanamide, 5-[[[2-(acetylamino)ethyl]amino]carbonyl]-2-(2-chloro-6-nitrophenyl)- (9CI) (CA INDEX NAME)

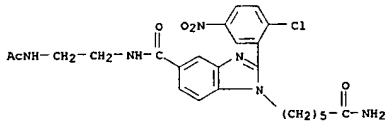


RN 569358-45-8 CAPLUS
CN 1H-Benzimidazole-1-hexanamide, 5-[[[2-(acetylamino)ethyl]amino]carbonyl]-2-(5-chloro-2-nitrophenyl)- (9CI) (CA INDEX NAME)

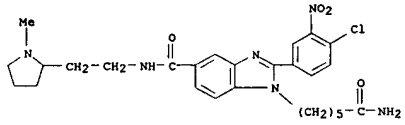
L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 569358-46-9 CAPLUS
CN 1H-Benzimidazole-1-hexanamide, 5-[[[2-(acetylamino)ethyl]amino]carbonyl]-2-(2-chloro-5-nitrophenyl)- (9CI) (CA INDEX NAME)

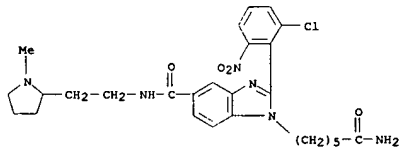


RN 569358-47-0 CAPLUS
CN 1H-Benzimidazole-1-hexanamide, 2-(4-chloro-3-nitrophenyl)-5-[[[2-(1-methyl-2-pyrrolidinyl)ethyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

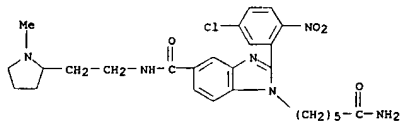


RN 569358-48-1 CAPLUS
CN 1H-Benzimidazole-1-hexanamide, 2-(2-chloro-6-nitrophenyl)-5-[[[2-(1-methyl-2-pyrrolidinyl)ethyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

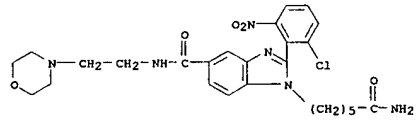


RN 569358-50-5 CAPLUS
CN 1H-Benzimidazole-1-hexanamide, 2-(5-chloro-2-nitrophenyl)-5-[[[2-(1-methyl-2-pyrrolidinyl)ethyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

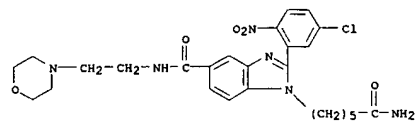


RN 569358-51-6 CAPLUS
CN 1H-Benzimidazole-1-hexanamide, 2-(2-chloro-5-nitrophenyl)-5-[[[2-(1-methyl-2-pyrrolidinyl)ethyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

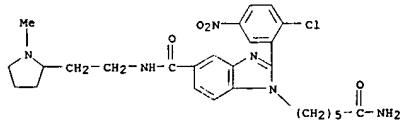
L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CN 1H-Benzimidazole-1-hexanamide, 2-(2-chloro-6-nitrophenyl)-5-[[[2-(4-morpholinyl)ethyl]amino]carbonyl]- (9CI) (CA INDEX NAME)



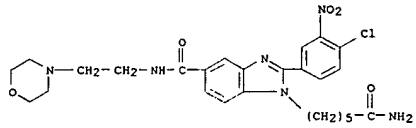
RN 569358-55-0 CAPLUS
CN 1H-Benzimidazole-1-hexanamide, 2-(5-chloro-2-nitrophenyl)-5-[[[2-(4-morpholinyl)ethyl]amino]carbonyl]- (9CI) (CA INDEX NAME)



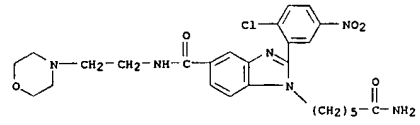
RN 569358-56-1 CAPLUS
CN 1H-Benzimidazole-1-hexanamide, 2-(2-chloro-5-nitrophenyl)-5-[[[2-(4-morpholinyl)ethyl]amino]carbonyl]- (9CI) (CA INDEX NAME)



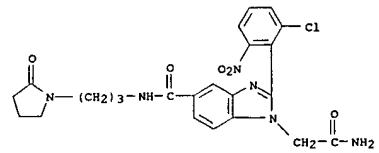
RN 569358-52-7 CAPLUS
CN 1H-Benzimidazole-1-hexanamide, 2-(4-chloro-3-nitrophenyl)-5-[[[2-(4-morpholinyl)ethyl]amino]carbonyl]- (9CI) (CA INDEX NAME)



RN 569358-53-8 CAPLUS

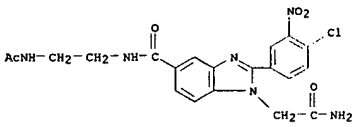


RN 569358-57-2 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(2-chloro-6-nitrophenyl)-5-[[[3-(2-oxo-1-pyrrolidinyl)propyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

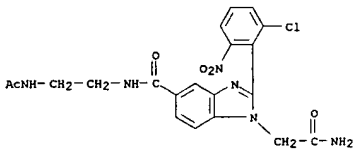


RN 569358-58-3 CAPLUS

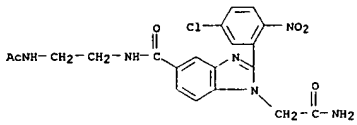
L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CN 1H-Benzimidazole-1-acetamide, 5-[[[2-(acetylamino)ethyl]amino]carbonyl]-2-(4-chloro-3-nitrophenyl)- (9CI) (CA INDEX NAME)



RN 569358-59-4 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 5-[[[2-(acetylamino)ethyl]amino]carbonyl]-2-(2-chloro-6-nitrophenyl)- (9CI) (CA INDEX NAME)

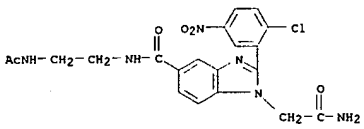


RN 569358-61-8 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 5-[[[2-(acetylamino)ethyl]amino]carbonyl]-2-(5-chloro-2-nitrophenyl)- (9CI) (CA INDEX NAME)

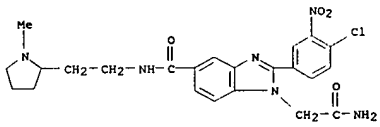


RN 569358-62-9 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 5-[[[2-(acetylamino)ethyl]amino]carbonyl]-2-(2-chloro-5-nitrophenyl)- (9CI) (CA INDEX NAME)

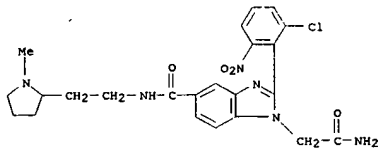
L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 569358-63-0 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(4-chloro-3-nitrophenyl)-5-[[[2-(1-methyl-2-pyrrolidinyl)ethyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

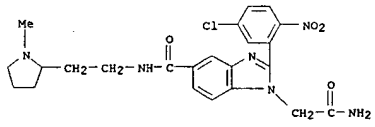


RN 569358-64-1 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(2-chloro-6-nitrophenyl)-5-[[[2-(1-methyl-2-pyrrolidinyl)ethyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

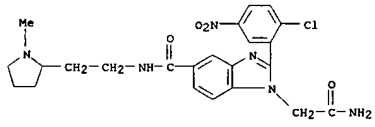


RN 569358-66-3 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(5-chloro-2-nitrophenyl)-5-[[[2-(1-methyl-2-pyrrolidinyl)ethyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

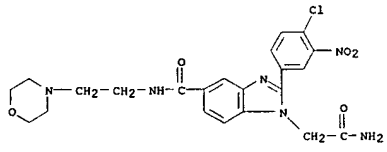
L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



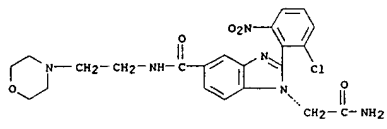
RN 569358-67-4 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(2-chloro-5-nitrophenyl)-5-[[[2-(1-methyl-2-pyrrolidinyl)ethyl]amino]carbonyl]- (9CI) (CA INDEX NAME)



RN 569358-68-5 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(4-chloro-3-nitrophenyl)-5-[[[2-(4-morpholinyl)ethyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

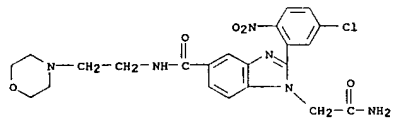


RN 569358-69-6 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(2-chloro-6-nitrophenyl)-5-[[[2-(4-morpholinyl)ethyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

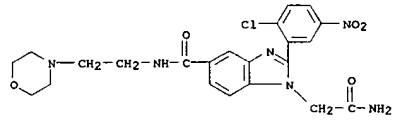


RN 569358-71-0 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(5-chloro-2-nitrophenyl)-5-[[[2-(4-morpholinyl)ethyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

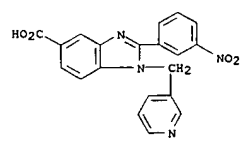


RN 569358-72-1 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(2-chloro-5-nitrophenyl)-5-[[[2-(4-morpholinyl)ethyl]amino]carbonyl]- (9CI) (CA INDEX NAME)



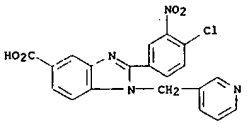
IT **569355-42-6P 569355-46-0P 569355-48-2P**
569355-49-3P 569355-50-6P 569355-51-7P
569355-53-9P 569355-54-0P 569355-60-8P
569355-61-9P 569355-63-1P 569355-64-2P
569355-65-3P 569355-66-4P 569355-68-6P
569355-69-7P 569355-70-0P 569355-71-1P
569355-73-3P 569355-74-4P
RL: CPN (Combinatorial preparation); CRT (Combinatorial reactant); RCT (Reactant); CMBI (Combinatorial study); PREP (Preparation); RACT (Reactant or reagent)
(solid-phase synthesis of benzimidazole libraries biased for RNA binding using Wang resin or Rink amide resin)

RN 569355-42-6 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(3-nitrophenyl)-1-(3-pyridinylmethyl)- (9CI) (CA INDEX NAME)

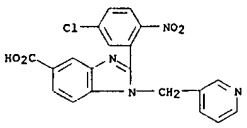


RN 569355-46-0 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(4-chloro-3-nitrophenyl)-1-(3-pyridinylmethyl)- (9CI) (CA INDEX NAME)

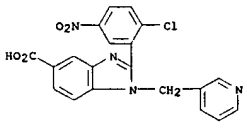
L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 569355-48-2 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(5-chloro-2-nitrophenyl)-1-(3-pyridinylmethyl)- (9CI) (CA INDEX NAME)

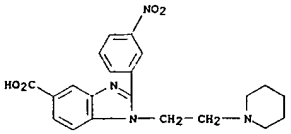


RN 569355-49-3 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(2-chloro-5-nitrophenyl)-1-(3-pyridinylmethyl)- (9CI) (CA INDEX NAME)

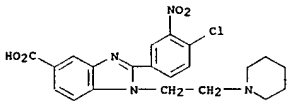


RN 569355-50-6 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(3-nitrophenyl)-1-[2-(1-piperidinyl)ethyl]- (9CI) (CA INDEX NAME)

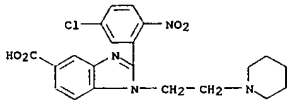
L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



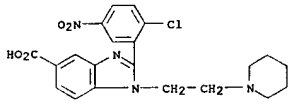
RN 569355-51-7 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(4-chloro-3-nitrophenyl)-1-[2-(1-piperidinyl)ethyl]- (9CI) (CA INDEX NAME)



RN 569355-53-9 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(5-chloro-2-nitrophenyl)-1-[2-(1-piperidinyl)ethyl]- (9CI) (CA INDEX NAME)

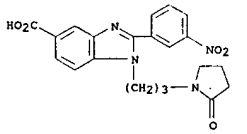


RN 569355-54-0 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(2-chloro-5-nitrophenyl)-1-[2-(1-piperidinyl)ethyl]- (9CI) (CA INDEX NAME)

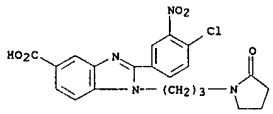


RN 569355-60-8 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(3-nitrophenyl)-1-[3-(2-oxo-1-pyrrolidinyl)propyl]- (9CI) (CA INDEX NAME)

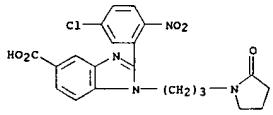
L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



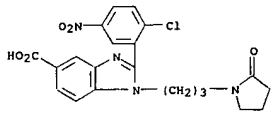
RN 569355-61-9 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(4-chloro-3-nitrophenyl)-1-[3-(2-oxo-1-pyrrolidinyl)propyl]- (9CI) (CA INDEX NAME)



RN 569355-63-1 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(5-chloro-2-nitrophenyl)-1-[3-(2-oxo-1-pyrrolidinyl)propyl]- (9CI) (CA INDEX NAME)

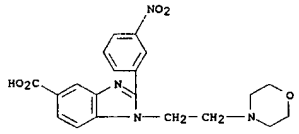


RN 569355-64-2 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(2-chloro-5-nitrophenyl)-1-[3-(2-oxo-1-pyrrolidinyl)propyl]- (9CI) (CA INDEX NAME)

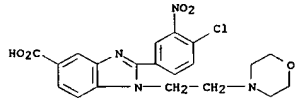


RN 569355-65-3 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 1-[2-(4-morpholinyl)ethyl]-2-(3-nitrophenyl)- (9CI) (CA INDEX NAME)

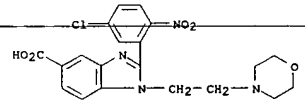
L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN . (Continued)



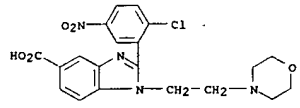
RN 569355-66-4 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(4-chloro-3-nitrophenyl)-1-[2-(4-morpholinyl)ethyl]- (9CI) (CA INDEX NAME)



RN 569355-68-6 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(5-chloro-2-nitrophenyl)-1-[2-(4-morpholinyl)ethyl]- (9CI) (CA INDEX NAME)

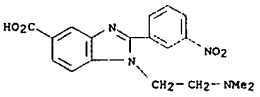


RN 569355-69-7 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(2-chloro-5-nitrophenyl)-1-[2-(4-morpholinyl)ethyl]- (9CI) (CA INDEX NAME)

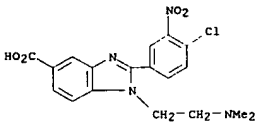


RN 569355-70-0 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 1-[2-(dimethylamino)ethyl]-2-(3-nitrophenyl)- (9CI) (CA INDEX NAME)

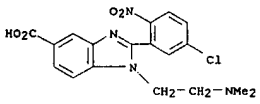
L4 ANSWER 31 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



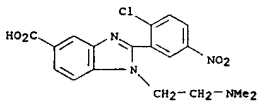
RN 569355-71-1 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(4-chloro-3-nitrophenyl)-1-[2-(dimethylamino)ethyl]- (9CI) (CA INDEX NAME)



RN 569355-73-3 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(5-chloro-2-nitrophenyl)-1-[2-(dimethylamino)ethyl]- (9CI) (CA INDEX NAME)



RN 569355-74-4 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-(2-chloro-5-nitrophenyl)-1-[2-(dimethylamino)ethyl]- (9CI) (CA INDEX NAME)



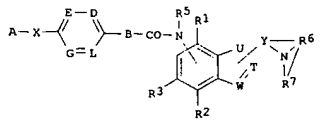
REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 32 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 28 Feb 2003
ACCESSION NUMBER: 2003:154238 CAPLUS
DOCUMENT NUMBER: 138:204941
TITLE: Preparation of indol-5-ylureas and relate compounds for the treatment of obesity and type II diabetes
INVENTOR(S): Schwink, Lothar; Stengelin, Siegfried; Gossel, Matthias
PATENT ASSIGNEE(S): Aventis Pharma Deutschland G.m.b.H., Germany
SOURCE: PCT Int. Appl., 77 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

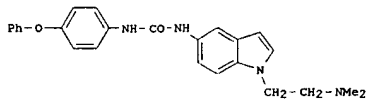
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003015769	A1	20030227	WO 2002-EP8686	20020803
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10139416	A1	20030306	DE 2001-10139416	20010817
CA 2457037	AA	20030227	CA 2002-2457037	20020803
EP 1418906	A1	20040519	EP 2002-774498	20020803
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
BR 2002011989	A	20040928	BR 2002-11989	20020803
JP 2005505530	T2	20050224	JP 2003-520728	20020803
US 2003212070	A1	20031113	US 2002-218034	20020814
EE 200400055	A	20040415	EE 2004-55	20030803
US 2004249165	A1	20041209	US 2003-479946	20031204
US 2004192693	A1	20040930	US 2004-820706	20040409
US 2004198731	A1	20041007	US 2004-820703	20040409
US 2004198732	A1	20041007	US 2004-820736	20040409
US 2004198733	A1	20041007	US 2004-820883	20040409

PRIORITY APPLN. INFO.: DE 2001-10139416 A 20010817; DE 2001-10139126 A 20010809; WO 2002-EP8686 W 20020803; US 2002-218034 A3 20020814
OTHER SOURCE(S): MARPAT 138:204941
GI

L4 ANSWER 32 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



I

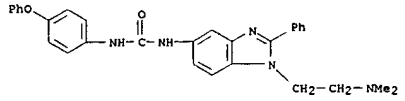


II

AB Title compds. I [A = alkyl, alkylen-aryl (sic), mono or bicyclic ring; X = CR8R9, C(OR10)R11, O, etc.; R8, R9, R10, R11 = H, alkyl; D = N, CR41; E = N, CR42; G = N, CR43; L = N, CR44; R1, R2, R3, R41, R42, R43, R44 = H, halo, OH, etc.; B = O, NR24; R24 = H, alkyl; R5 = H, alkyl; W = N, CR25; R25 = H, alkyl aryl, bond to Y; T = N, CR26; R26 = H, alkyl, aryl, etc.; U = O, S, NR27; R27 = H, alkyl, bond to Y; Y = substituted alkylene, e.g, O, S, SO, etc.; R6, R7 = H, alkyl, cycloalkyl, etc.] and their pharmaceutically acceptable salts were prepared For example, three component coupling of 1-dimethylaminoethyl-5-aminoindole, carbonyldimidazol and 4-aminodiphenylether provided indolylurea II. In human melanin-concentrating hormone receptor assays, 41-specific examples of compds. I exhibited IC50 values ranging from 4.25-0.10 μM, e.g., indolylurea II IC50 = 0.15 μM. Compds. I are said useful as anorexic agents.

IT **500013-64-9P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of indolylureas and relate compds. for the treatment of obesity and type II diabetes)

RN 500013-64-9 CAPLUS
CN Urea, N-[1-[2-(dimethylamino)ethyl]-2-phenyl-1H-benzimidazol-5-yl]-N'-(4-phenoxyphenyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 33 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 21 Feb 2003
ACCESSION NUMBER: 2003:133024 CAPLUS
DOCUMENT NUMBER: 138:163576
TITLE: Method for prevention or suppression of symptoms of psychosis
INVENTOR(S): Richtand, Neil
PATENT ASSIGNEE(S): The United States of America as Represented by Department of Veterans Affairs, USA
SOURCE: PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003013507	A1	20030220	WO 2001-US24891	20010809
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004176467	A1	20040909	US 2004-486593	20040209

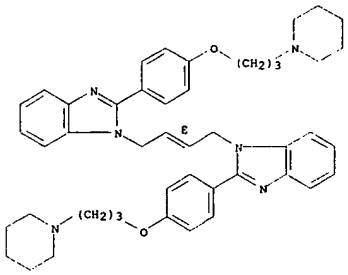
PRIORITY APPLN. INFO.: WO 2001-US24891 W 20010809
AB A method for prevention or suppression of symptoms of psychosis by treating non-psychotic patients who are at risk of developing psychosis is discosed. The method includes determining whether a patient is at risk for developing psychosis; making a diagnosis that the patient is at risk; and administering to the patient a selective D3 antagonist prior to the time the patient is psychotic in an amount sufficient to prevent or suppress symptoms of psychosis.

IT **164917-23-1**, PD 152255
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(method for prevention or reducing occurrence of psychosis symptoms)

RN 164917-23-1 CAPLUS
CN 1H-Benzimidazole, 1,1'-(2E)-2-butene-1,4-diylbis[2-[4-[3-(1-piperidinyl)propoxy]phenyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

L4 ANSWER 33 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

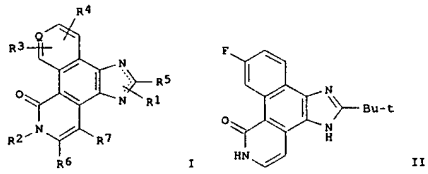


REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 34 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 14 Feb 2003
ACCESSION NUMBER: 2003:117620 CAPLUS
DOCUMENT NUMBER: 138:153536
TITLE: Preparation of benzimidazo[4,5-f]isoquinolinones as inhibitors of Janus protein tyrosine kinases (Jak)
INVENTOR(S): Goulet, Joung L.; Hong, Xingfang; Sinclair, Peter J.; Thompson, James E.; Cubbon, Rose M.; Cummings, Richard T.
PATENT ASSIGNEE(S): Merck & Co., Inc., USA
SOURCE: PCT Int. Appl., 78 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003011285	A1	20030213	WO 2002-US23876	20020726
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2455181	AA	20030213	CA 2002-2455181	20020726
EP 1414443	A1	20040506	EP 2002-752600	20020726
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
JP 2005504752	T2	20050217	JP 2003-516515	20020726
US 2004176601	A1	20040909	US 2004-485720	20040130
US 6852727	B2	20050208		

PRIORITY APPLN. INFO.: US 2001-309364P P 20010801
WO 2002-US23876 W 20020726
OTHER SOURCE(S): MARPAT 138:153536
GI

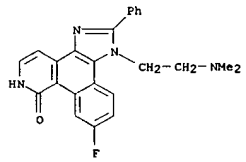


AB The title compds. I [Q = N, C; R1 is attached to the N atom and = H,

L4 ANSWER 34 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
alkyl, cycloalkyl, etc.; R2 = R1; R3, R4, R6, R7 = H, X, alkenyl, cycloalkyl; R5 = H, alkyl, alkenyl, etc.; X = halo, CN, perfluoroalkyl, etc.] which are inhibitors of Janus protein tyrosine kinases (Jak), and as such are useful as immunosuppressants, and in the treatment of diseases including asthma, allergies, autoimmune diseases, were prepd. and formulated. E.g., a 5-step synthesis of II, starting from 2-fluoro-4-methylpyridine and Et 4-fluorobenzoate, was given.

IT **496803-76-0P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of benzimidazo[4,5-f]isoquinolinones as inhibitors of Janus protein tyrosine kinases (Jak))

RN 496803-76-0 CAPLUS
CN 7H-Benz[h]imidazo[4,5-f]isoquinolin-7-one, 1-[2-(dimethylamino)ethyl]-9-fluoro-1,6-dihydro-2-phenyl- (9CI) (CA INDEX NAME)

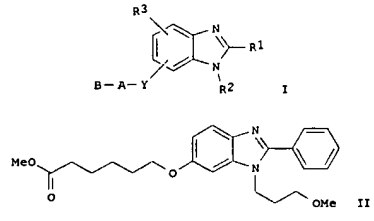


REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 35 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 17 Jan 2003
ACCESSION NUMBER: 2003:42104 CAPLUS
DOCUMENT NUMBER: 138:106697
TITLE: Preparation of 1-alkyl-2-arylbenzimidazole derivatives for treatment of diseases linked to the activation of microglia
INVENTOR(S): Blume, Thorsten; Halfbrodt, Wolfgang; Kuhnke, Joachim; Moenning, Ursula; Elger, Bernd; Schneider, Herbert
PATENT ASSIGNEE(S): Schering Aktiengesellschaft, Germany
SOURCE: PCT Int. Appl., 87 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003004023	A1	20030116	WO 2002-EP7597	20020706
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10134775	A1	20030130	DE 2001-10134775	20010706
US 2003055057	A1	20030320	US 2002-189179	20020705
US 6855714	B2	20050215		
EP 1404321	A1	20040407	EP 2002-762333	20020706
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, BG, CZ, EE, SK				
JP 2004530731	T2	20041007	JP 2003-510034	20020706

PRIORITY APPLN. INFO.: DE 2001-10134775 A 20010706
US 2002-347242P P 20020114
WO 2002-EP7597 W 20020706
OTHER SOURCE(S): MARPAT 138:106697
GI



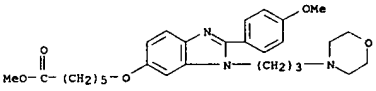
AB Title compds. I [wherein R1 = (un)substituted (hetero)aryl, especially

L4 ANSWER 35 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
benzothienyl or indolyl; R2 = (un)substituted (cyclo)alkyl, alkenyl, hydroxyalkyl, aminoalkyl, carbamoylalkyl, Ph, etc.; R3 = H, F, Cl, Br, OH, CN, NO2, or (un)substituted carbamoyl(oxy), sulfamoyl, amino, ureido, etc.; A = (un)substituted alkanediyl, alkenediyl, or alkynediyl, cycloalkyl ring, heterocyclyl ring, etc.; B = CO2H, carboxy ester, carbamoyl, etc.; Y = O, NH, (un)substituted ureido, sulfamoyl, etc.) were prepd. as microglia activation inhibitors. For example, a multi-step synthesis starting from 3-fluoro-4-nitrophenol, 3-methoxypropylamine, Me 6-bromohexanoate, and tri-Me orthobenzoate produced 6-[[5-(methoxycarbonyl)pentyl]oxy]-1-(3-methoxypropyl)-2-phenylbenzimidazole (II). The latter inhibited Aβ-activation of microglia in vitro with an IC50 of 0.65 μM. Thus, I are useful for the prophylaxis and treatment of diseases linked to the activation of microglia, such as inflammation, allergy, infection, autoimmune disease, and stroke (no data).

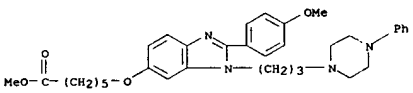
IT **486418-06-8P**, 6-[[5-(Methoxycarbonyl)pentyl]oxy]-2-(4-methoxyphenyl)-1-[3-(morpholin-4-yl)propyl]benzimidazole
486418-08-0P, 6-[[5-(Methoxycarbonyl)pentyl]oxy]-2-(4-methoxyphenyl)-1-[3-[4-phenylpiperazin-1-yl]propyl]benzimidazole
486418-12-6P, 1-[3-(N,N-Diethylamino)propyl]-6-[[5-(methoxycarbonyl)pentyl]oxy]-2-(4-methoxyphenyl)benzimidazole
486418-14-8P, 6-[[5-(Methoxycarbonyl)pentyl]oxy]-2-(4-methoxyphenyl)-1-[3-[4-(pyrid-2-yl]piperazin-1-yl]propyl]benzimidazole
486418-16-0P, 6-[[5-(Methoxycarbonyl)pentyl]oxy]-2-(4-methoxyphenyl)-1-[3-[4-(pyrimid-2-yl)piperazin-1-yl]propyl]benzimidazole
486418-18-2P, 1-[3-[4-(2-Hydroxyethyl)piperazin-1-yl]propyl]-6-[[5-(methoxycarbonyl)pentyl]oxy]-2-(4-methoxyphenyl)benzimidazole
486418-20-6P, 6-[[5-(Methoxycarbonyl)pentyl]oxy]-2-(4-methoxyphenyl)-1-[3-[N-methyl-N-(methylcarbonyl)amino]propyl]benzimidazole
486418-22-8P, 6-[[5-(Methoxycarbonyl)pentyl]oxy]-2-(4-methoxyphenyl)-1-[3-[N-methyl-N-(trifluoromethylcarbonyl)amino]propyl]benzimidazole **486418-26-2P**, 6-[[5-(Methoxycarbonyl)pentyl]oxy]-2-(4-methoxyphenyl)-1-[3-[N-methyl-N-[(2-methylthio)ethyl)carbonyl]amino]propyl]benzimidazole **486418-28-4P**, 6-[[5-(Methoxycarbonyl)pentyl]oxy]-2-(4-methoxyphenyl)-1-[3-[N-methyl-N-(trimethylmethylcarbonyl)amino]propyl]benzimidazole **486418-30-8P**, 6-[[5-(Methoxycarbonyl)pentyl]oxy]-2-(4-methoxyphenyl)-1-[3-[N-methyl-N-(fur-2-ylcarbonyl)amino]propyl]benzimidazole **486418-31-9P**, 6-[[5-(Methoxycarbonyl)pentyl]oxy]-2-(4-methoxyphenyl)-1-[3-[N-methyl-N-(methoxymethylcarbonyl)amino]propyl]benzimidazole **486418-56-8P**, 1-[(N,N-Dimethylamino)carbonylmethyl]-5-[[5-(methoxycarbonyl)pentyl]oxy]-2-phenylbenzimidazole
486418-58-0P, 1-[(N,N-Dimethylamino)carbonylmethyl]-6-[[5-(methoxycarbonyl)pentyl]oxy]-2-phenylbenzimidazole **486418-76-2P**, 1-[(N,N-Diethylamino)carbonylmethyl]-5-[[5-(methoxycarbonyl)pentyl]oxy]-2-phenylbenzimidazole **486418-78-4P**, 1-[(N,N-Diethylamino)carbonylmethyl]-6-[[5-(methoxycarbonyl)pentyl]oxy]-2-phenylbenzimidazole **486419-06-1P**, 5-[(5-Carboxypentyl)oxy]-1-[[(N,N-dimethylamino)carbonyl]methyl]-2-phenylbenzimidazole
486419-08-3P, 6-[(5-Carboxypentyl)oxy]-1-[[(N,N-dimethylamino)carbonyl]methyl]-2-phenylbenzimidazole **486419-12-9P**, 5-[(5-Carboxypentyl)oxy]-1-[[(N,N-diethylamino)carbonyl]methyl]-2-phenylbenzimidazole **486419-37-8P**, 6-[[5-(Methoxycarbonyl)pentyl]oxy]-2-(4-methoxyphenyl)-1-[3-(pyrrolidin-1-yl)propyl]benzimidazole **486419-39-0P**, 6-[[5-(Methoxycarbonyl)pentyl]oxy]-2-(4-methoxyphenyl)-1-[3-(piperidin-1-yl)propyl]benzimidazole **486419-41-4P**, 6-[[5-(Methoxycarbonyl)pentyl]oxy]-1-[3-[N,N-bis(2-methoxyethyl)amino]propyl]-2-(4-methoxyphenyl)benzimidazole **486419-43-6P**,

L4 ANSWER 35 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
6-[[5-(Methoxycarbonyl)pentyl]oxy]-2-(4-methoxyphenyl)-1-[3-(4-methylpiperazin-1-yl)propyl]benzimidazole **486419-45-8P**, 6-[[5-(Methoxycarbonyl)pentyl]oxy]-2-(4-methoxyphenyl)-1-[3-[(3-(imidazol-1-yl)propyl]amino]propyl]benzimidazole **486419-47-0P**, 6-[[5-(Methoxycarbonyl)pentyl]oxy]-2-(4-methoxyphenyl)-1-[3-[4-(fur-2-ylcarbonyl)piperazin-1-yl]propyl]benzimidazole **486419-49-2P**, 6-[[5-(Methoxycarbonyl)pentyl]oxy]-2-(4-methoxyphenyl)-1-[3-[(2-hydroxyethyl)amino]propyl]benzimidazole **486419-51-6P**, 6-[[5-(Methoxycarbonyl)pentyl]oxy]-2-(4-methoxyphenyl)-1-[3-(imidazol-1-yl)propyl]benzimidazole **486419-53-8P**, 6-[[5-(Methoxycarbonyl)pentyl]oxy]-2-(4-methoxyphenyl)-1-[3-[N-methyl-N-(ethylcarbonyl)amino]propyl]benzimidazole **486419-55-0P**, 6-[[5-(Methoxycarbonyl)pentyl]oxy]-2-(4-methoxyphenyl)-1-[3-[N-methyl-N-(dimethylmethylcarbonyl)amino]propyl]benzimidazole **486419-57-2P**, 6-[[5-(Methoxycarbonyl)pentyl]oxy]-2-(4-methoxyphenyl)-1-[3-[N-methyl-N-(pyrid-3-ylcarbonyl)amino]propyl]benzimidazole
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(microglia activation inhibitor; prepn. of (alkyl)(aryl)benzimidazoles as microglia activation inhibitors for treatment of inflammation, allergy, infection, autoimmune disease, and stroke)

RN 486418-06-8 CAPLUS
CN Hexanoic acid, 6-[[2-(4-methoxyphenyl)-1-[3-(4-morpholinyl)propyl]-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

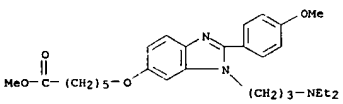


RN 486418-08-0 CAPLUS
CN Hexanoic acid, 6-[[2-(4-methoxyphenyl)-1-[3-(4-phenyl-1-piperazinyl)propyl]-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

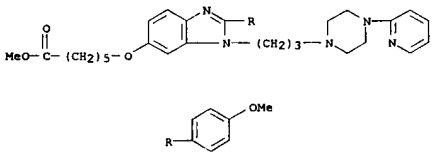


RN 486418-12-6 CAPLUS
CN Hexanoic acid, 6-[[1-[3-(diethylamino)propyl]-2-(4-methoxyphenyl)-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

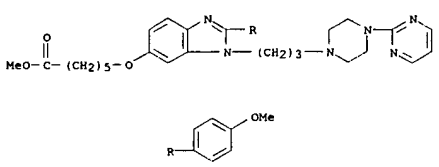
L4 ANSWER 35 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 486418-14-8 CAPLUS
CN Hexanoic acid, 6-[[2-(4-methoxyphenyl)-1-[3-[4-(2-pyridinyl)-1-piperazinyl]propyl]-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

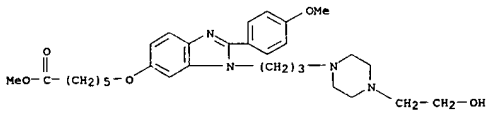


RN 486418-16-0 CAPLUS
CN Hexanoic acid, 6-[[2-(4-methoxyphenyl)-1-[3-[4-(2-pyrimidinyl)-1-piperazinyl]propyl]-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

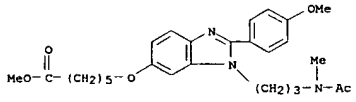


RN 486418-18-2 CAPLUS
CN Hexanoic acid, 6-[[1-[3-[4-(2-hydroxyethyl)-1-piperazinyl]propyl]-2-(4-methoxyphenyl)-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

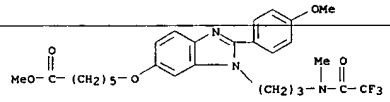
L4 ANSWER 35 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



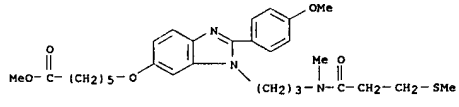
RN 486418-20-6 CAPLUS
CN Hexanoic acid, 6-[[1-[3-(acetylmethylamino)propyl]-2-(4-methoxyphenyl)-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



RN 486418-22-8 CAPLUS
CN Hexanoic acid, 6-[[2-(4-methoxyphenyl)-1-[3-[methyl(trifluoroacetyl)amino]propyl]-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

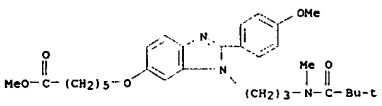


RN 486418-26-2 CAPLUS
CN Hexanoic acid, 6-[[2-(4-methoxyphenyl)-1-[3-[methyl[3-(methylthio)-1-oxopropyl]amino]propyl]-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

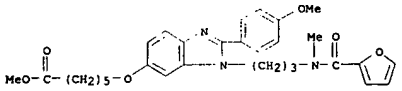


RN 486418-28-4 CAPLUS
CN Hexanoic acid, 6-[[1-[3-[(2,2-dimethyl-1-oxopropyl)methylamino]propyl]-2-(4-methoxyphenyl)-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

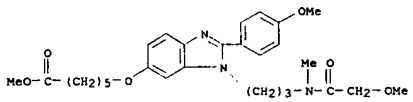
L4 ANSWER 35 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



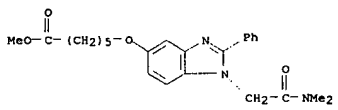
RN 486418-30-8 CAPLUS
CN Hexanoic acid, 6-[[1-[3-[[2-furanylcarbonyl]methylamino]propyl]-2-(4-methoxyphenyl)-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



RN 486418-31-9 CAPLUS
CN Hexanoic acid, 6-[[1-[3-[(methoxyacetyl)methylamino]propyl]-2-(4-methoxyphenyl)-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

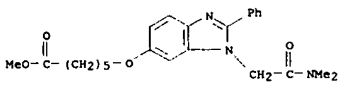


RN 486418-56-8 CAPLUS
CN Hexanoic acid, 6-[[1-[2-(dimethylamino)-2-oxoethyl]-2-phenyl-1H-benzimidazol-5-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

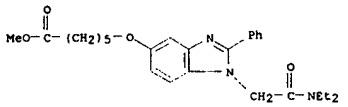


RN 486418-58-0 CAPLUS
CN Hexanoic acid, 6-[[1-[2-(dimethylamino)-2-oxoethyl]-2-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

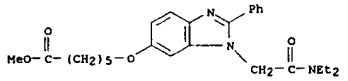
L4 ANSWER 35 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



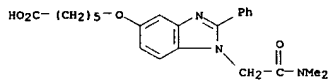
RN 486418-76-2 CAPLUS
CN Hexanoic acid, 6-[[1-[2-(diethylamino)-2-oxoethyl]-2-phenyl-1H-benzimidazol-5-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



RN 486418-78-4 CAPLUS
CN Hexanoic acid, 6-[[1-[2-(diethylamino)-2-oxoethyl]-2-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

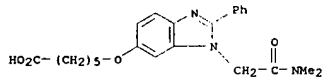


RN 486419-06-1 CAPLUS
CN Hexanoic acid, 6-[[1-[2-(dimethylamino)-2-oxoethyl]-2-phenyl-1H-benzimidazol-5-yl]oxy]- (9CI) (CA INDEX NAME)

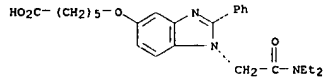


RN 486419-08-3 CAPLUS
CN Hexanoic acid, 6-[[1-[2-(dimethylamino)-2-oxoethyl]-2-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)

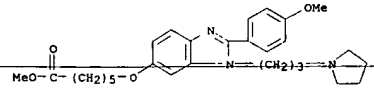
L4 ANSWER 35 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



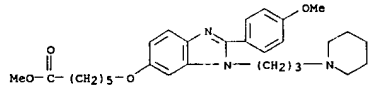
RN 486419-12-9 CAPLUS
CN Hexanoic acid, 6-[[1-[2-(diethylamino)-2-oxoethyl]-2-phenyl-1H-benzimidazol-5-yl]oxy]- (9CI) (CA INDEX NAME)



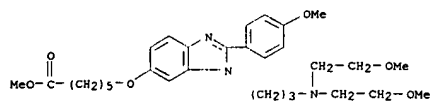
RN 486419-37-8 CAPLUS
CN Hexanoic acid, 6-[[2-(4-methoxyphenyl)-1-[3-(1-pyrrolidinyl)propyl]-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



RN 486419-39-0 CAPLUS
CN Hexanoic acid, 6-[[2-(4-methoxyphenyl)-1-[3-(1-piperidinyl)propyl]-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

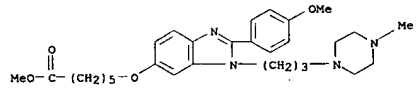


RN 486419-41-4 CAPLUS
CN Hexanoic acid, 6-[[1-[3-[bis(2-methoxyethyl)amino]propyl]-2-(4-methoxyphenyl)-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

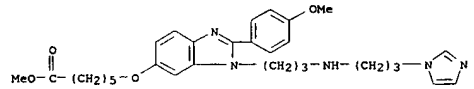


L4 ANSWER 35 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

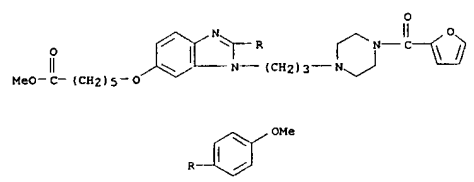
RN 486419-43-6 CAPLUS
CN Hexanoic acid, 6-[[2-(4-methoxyphenyl)-1-[3-(4-methyl-1-piperazinyl)propyl]-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



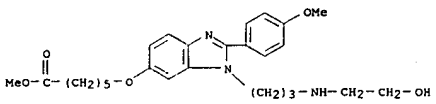
RN 486419-45-8 CAPLUS
CN Hexanoic acid, 6-[[1-[3-[[3-(1H-imidazol-1-yl)propyl]amino]propyl]-2-(4-methoxyphenyl)-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



RN 486419-47-0 CAPLUS
CN Hexanoic acid, 6-[[1-[3-[4-(2-furanylcarbonyl)-1-piperazinyl]propyl]-2-(4-methoxyphenyl)-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

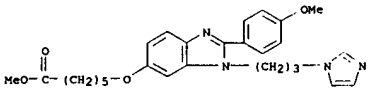


RN 486419-49-2 CAPLUS
CN Hexanoic acid, 6-[[1-[3-[(2-hydroxyethyl)amino]propyl]-2-(4-methoxyphenyl)-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

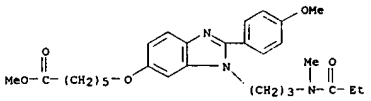


L4 ANSWER 35 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

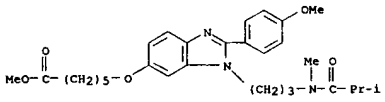
RN 486419-51-6 CAPLUS
CN Hexanoic acid, 6-[[1-[3-(1H-imidazol-1-yl)propyl]-2-(4-methoxyphenyl)-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



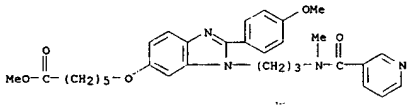
RN 486419-53-8 CAPLUS
CN Hexanoic acid, 6-[[2-(4-methoxyphenyl)-1-[3-[methyl(1-oxopropyl)amino]propyl]-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



RN 486419-55-0 CAPLUS
CN Hexanoic acid, 6-[[2-(4-methoxyphenyl)-1-[3-[methyl(2-methyl-1-oxopropyl)amino]propyl]-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



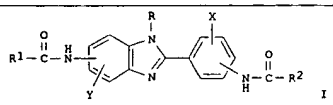
RN 486419-57-2 CAPLUS
CN Hexanoic acid, 6-[[2-(4-methoxyphenyl)-1-[3-[methyl(3-pyridinylcarbonyl)amino]propyl]-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



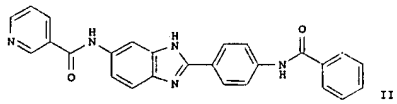
L4 ANSWER 36 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 03 Jan 2003
ACCESSION NUMBER: 2003:5494 CAPLUS
DOCUMENT NUMBER: 138:55965
TITLE: Synthesis of diacylbenzimidazole derivatives as modulators of IgE
INVENTOR(S): Sircar, Jagadish C.; Richards, Mark L.; Campbell, Michael G.; Major, Michael W.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 128 pp., Cont.-in-part of U.S. Ser. No. 422,397.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 8
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003004203	A1	20030102	US 2001-983054	20011016
US 6271390	B1	20010807	US 1999-316870	19990521
US 6303645	B1	20011016	US 1999-422397	19991021
US 2005075343	A1	20050407	US 2004-951515	20040928
PRIORITY APPLN. INFO.:			US 1998-86494P P	19980522
			US 1999-316870 A2	19990521
			US 1999-422397 A2	19991021
			US 2001-983054 A1	20011016

OTHER SOURCE(S): MARPAT 138:55965
GI



I



II

AB Title compds. I [X, Y = H, alkyl, alkoxy, aryl, aryl, hydroxy, halogen, amino, alkylamino, nitro, cyano, CF3, OCF3, CONH2, CONHR, NHCOR1; R = H, CH3, C2H5, C3H7, C4H9, CH2Ph, 4-F-C6H4-CH2; R1, R2 = H, aryl, aryl, cycloaryl, multi-ring cycloaryl, benzyl, alkyl, cycloalkyl, multi-ring cycloalkyl, fused-ring aliphatic, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, bicycloheptyl, bicyclooctyl, bicyclononyl, etc. and at least one of R1 and R2 are aromatic groups] are prepared Over 20 examples are claimed, e.g., II. I are able to suppress IgE with IC50 in the range of 1 pM and are useful in the treatment of allergy, asthma or

L4 ANSWER 35 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

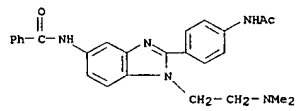
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 36 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

any diseases where IgE is pathogenic.

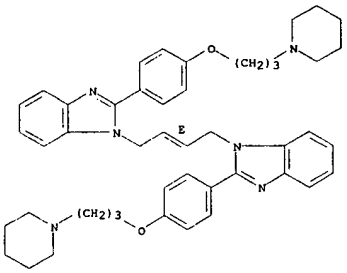
IT **479074-59-4P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis of diacylbenzimidazole derivs. as modulators of IgE)

RN 479074-59-4 CAPLUS
CN Benzamide, N-[2-[4-(acetylamino)phenyl]-1-[2-(dimethylamino)ethyl]-1H-benzimidazol-5-yl]- (9CI) (CA INDEX NAME)



L4 ANSWER 37 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 26 Dec 2002
ACCESSION NUMBER: 2002:973360 CAPLUS
DOCUMENT NUMBER: 138:232052
TITLE: Effects of the dopamine antagonist PD 152255 on juvenile rats' responses to dorsal stimulation, the transport response, and related behaviors
AUTHOR(S): Wilson, Christopher; Pulido, Marisa
CORPORATE SOURCE: Sam Houston State University, USA
SOURCE: Behavioral Neuroscience (2002), 116(6), 1098-1102
CODEN: BENEDJ; ISSN: 0735-7044
PUBLISHER: American Psychological Association
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The authors gave 23- and 40-day-old rats doses of the dopamine D3 antagonist PD 152255 and tested them on transport response intensity, vertical cling catalepsy duration, and dorsal immobility duration. Administration of PD 152255 resulted in dose-dependent increases in transport response intensity in 40-day-old rats but was without effect in 23-day-old rats. Administration of PD 152255 caused increases in dorsal immobility durations in both 23- and 40-day-old subjects. The drug was without effect on vertical cling catalepsy. Results are discussed with respect to the role of D3 receptors in the transport response and the nature of D2-D3 receptor interactions.
IT 164917-23-1, PD 152255
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(dopamine antagonist PD 152255 effect on juvenile rat responses to dorsal stimulation and transport response and related behaviors)
RN 164917-23-1 CAPLUS
CN 1H-Benzimidazole, 1,1'-(2E)-2-butene-1,4-diylbis[2-[4-[3-(1-piperidinyl)propoxy]phenyl]- (9CI) (CA INDEX NAME)

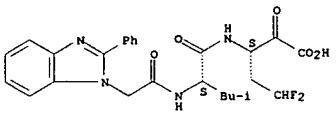
Double bond geometry as shown.



REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 38 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 24 Oct 2002
ACCESSION NUMBER: 2002:808818 CAPLUS
DOCUMENT NUMBER: 138:378538
TITLE: Capped dipeptide α-ketoacid inhibitors of the HCV NS3 protease
AUTHOR(S): Nizi, Emanuela; Koch, Uwe; Ponzi, Simona; Matassa, Victor G.; Gardelli, Cristina
CORPORATE SOURCE: Dept. of Chemistry, IRBM, Rome, 00040, Italy
SOURCE: Bioorganic & Medicinal Chemistry Letters (2002), 12(22), 3325-3328
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 138:378538
AB The N-terminal amino acid of α-ketotripeptide inhibitors of the hepatitis C virus NS3 protease can be replaced with an α-hydroxy acid, leading to capped dipeptide inhibitors such as 20 with an IC50 value of 3.0 μM. The importance of the lipophilic side chain interactions at S3 of the protease and the requirement of the capping residue with R configuration have been explained by mol. modeling studies.
IT 525605-52-1
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(capped dipeptide α-ketoacid inhibitors of the HCV NS3 protease)
RN 525605-52-1 CAPLUS
CN Pentanoic acid, 5,5-difluoro-3-[[(2S)-4-methyl-1-oxo-2-[[(2-phenyl-1H-benzimidazol-1-yl)acetyl]amino]pentyl]amino]-2-oxo-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

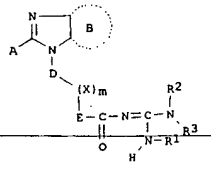


REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 39 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 18 Sep 2002
ACCESSION NUMBER: 2002:708801 CAPLUS
DOCUMENT NUMBER: 137:232652
TITLE: Preparation of benzimidazole derivatives as osteoclast differentiation induction inhibitors
INVENTOR(S): Horiuchi, Yoshihiro; Nakahira, Hiroyuki
PATENT ASSIGNEE(S): Sumitomo Pharmaceuticals Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

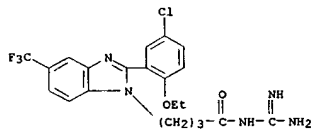
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002265455	A2	20020918	JP 2001-64854	20010308
PRIORITY APPLN. INFO.:			JP 2001-64854	20010308

OTHER SOURCE(S): MARPAT 137:232652
GI

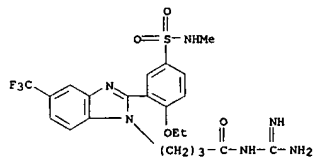


AB The title compds. I [A = (un)substituted aromatic ring; ring B = (un)substituted benzene ring; D = (un)substituted alkylene; E = single bond, (un)substituted alkylene; X = O, etc.; m = 0 or 1; R1, R2 = H, alkyl, etc.; R3 = H, alkyl, nitro, etc.] are prepared The osteoclast differentiation induction inhibiting activity of 5 compds. of this invention was demonstrated. Formulations are given.
IT 459428-42-3P 459428-43-4P 459428-44-5P
459428-45-6P 459428-46-7P 459428-47-8P
459428-48-9P 459428-49-0P 459428-50-3P
459428-51-4P 459428-52-5P 459428-53-6P
459428-54-7P 459428-55-8P 459428-56-9P
459428-57-0P 459428-58-1P 459428-59-2P
459428-60-5P 459428-61-6P 459428-62-7P
459428-63-8P 459428-64-9P 459428-65-0P
459428-66-1P 459428-67-2P 459428-68-3P
459428-69-4P 459428-70-7P 459428-71-8P
459428-72-9P 459428-73-0P 459428-76-3P
459428-77-4P 459428-78-5P 459428-79-6P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of benzimidazole derivs. as osteoclast differentiation induction inhibitors)
RN 459428-42-3 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-2-(5-chloro-2-

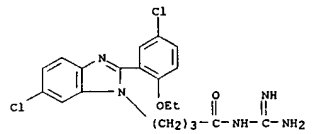
L4 ANSWER 39 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
ethoxyphenyl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 459428-43-4 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-2-[2-ethoxy-5-[(methylamino)sulfonyl]phenyl]-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

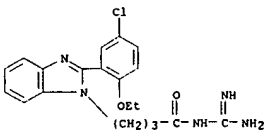


RN 459428-44-5 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-6-chloro-2-(5-chloro-2-ethoxyphenyl)- (9CI) (CA INDEX NAME)

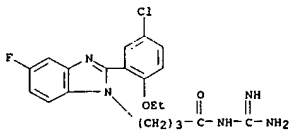


RN 459428-45-6 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-2-(5-chloro-2-ethoxyphenyl)- (9CI) (CA INDEX NAME)

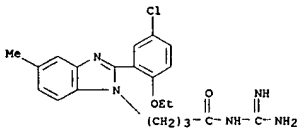
L4 ANSWER 39 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 459428-46-7 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-2-(5-chloro-2-ethoxyphenyl)-5-fluoro- (9CI) (CA INDEX NAME)

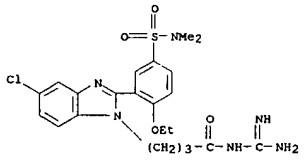


RN 459428-47-8 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-2-(5-chloro-2-ethoxyphenyl)-5-methyl- (9CI) (CA INDEX NAME)

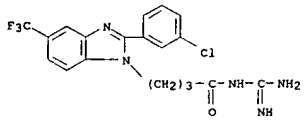


RN 459428-48-9 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-2-(5-chloro-2-ethoxyphenyl)-6-fluoro- (9CI) (CA INDEX NAME)

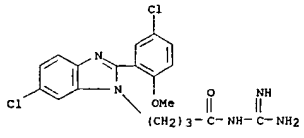
L4 ANSWER 39 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



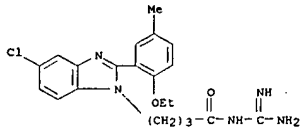
RN 459428-52-5 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-2-(3-chlorophenyl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 459428-53-6 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-6-chloro-2-(5-chloro-2-methoxyphenyl)- (9CI) (CA INDEX NAME)

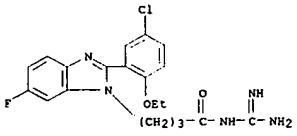


RN 459428-54-7 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-5-chloro-2-(2-ethoxy-5-methylphenyl)- (9CI) (CA INDEX NAME)

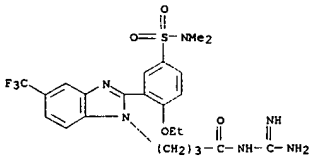


RN 459428-55-8 CAPLUS

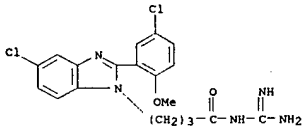
L4 ANSWER 39 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 459428-49-0 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-2-[5-[(dimethylamino)sulfonyl]-2-ethoxyphenyl]-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)



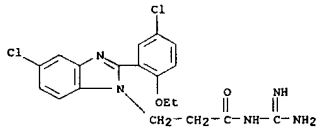
RN 459428-50-3 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-5-chloro-2-(5-chloro-2-methoxyphenyl)- (9CI) (CA INDEX NAME)



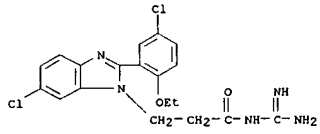
RN 459428-51-4 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-5-chloro-2-[5-[(dimethylamino)sulfonyl]-2-ethoxyphenyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 39 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

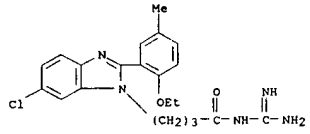
CN 1H-Benzimidazole-1-propanamide, N-(aminoiminomethyl)-5-chloro-2-(5-chloro-2-ethoxyphenyl)- (9CI) (CA INDEX NAME)



RN 459428-56-9 CAPLUS
CN 1H-Benzimidazole-1-propanamide, N-(aminoiminomethyl)-6-chloro-2-(5-chloro-2-ethoxyphenyl)- (9CI) (CA INDEX NAME)

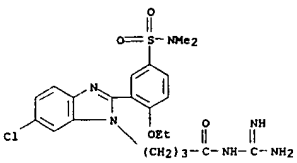


RN 459428-57-0 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-6-chloro-2-(2-ethoxy-5-methylphenyl)- (9CI) (CA INDEX NAME)

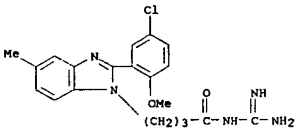


RN 459428-58-1 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-6-chloro-2-[5-[(dimethylamino)sulfonyl]-2-ethoxyphenyl]- (9CI) (CA INDEX NAME)

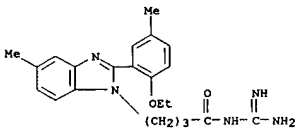
L4 ANSWER 39 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 459428-59-2 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-2-(5-chloro-2-methoxyphenyl)-5-methyl- (9CI) (CA INDEX NAME)

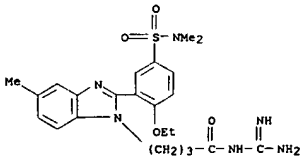


RN 459428-60-5 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-2-(2-ethoxy-5-methylphenyl)-5-methyl- (9CI) (CA INDEX NAME)

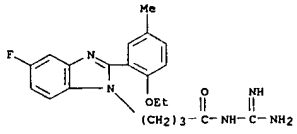


RN 459428-61-6 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-2-[5-[(dimethylamino)sulfonyl]-2-ethoxyphenyl]-5-methyl- (9CI) (CA INDEX NAME)

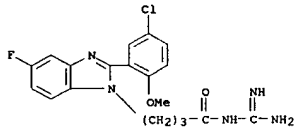
L4 ANSWER 39 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 459428-62-7 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-2-(2-ethoxy-5-methylphenyl)-5-fluoro- (9CI) (CA INDEX NAME)

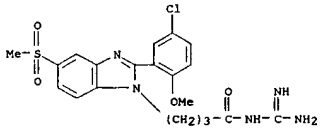


RN 459428-63-8 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-2-(5-chloro-2-methoxyphenyl)-5-fluoro- (9CI) (CA INDEX NAME)

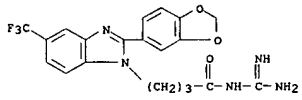


RN 459428-64-9 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-2-(5-chloro-2-methoxyphenyl)-5-(methylsulfonyl)- (9CI) (CA INDEX NAME)

L4 ANSWER 39 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

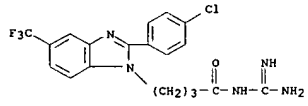


RN 459428-65-0 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-2-(1,3-benzodioxol-5-yl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

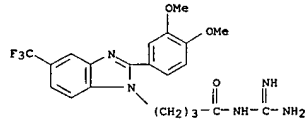


RN 459428-66-1 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-2-(3-chloro-4-methoxyphenyl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

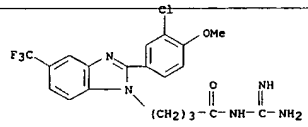
L4 ANSWER 39 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



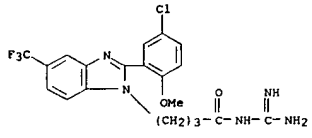
RN 459428-69-4 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-2-(3,4-dimethoxyphenyl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)



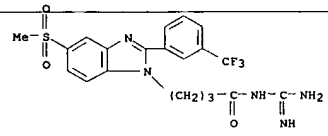
RN 459428-70-7 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-5-(methylsulfonyl)-2-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



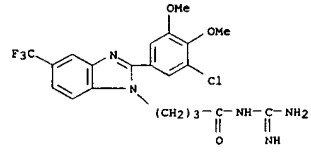
RN 459428-67-2 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-2-(5-chloro-2-methoxyphenyl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 459428-68-3 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-2-(4-chlorophenyl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

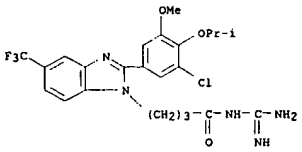


RN 459428-71-8 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-2-(3-chloro-4,5-dimethoxyphenyl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

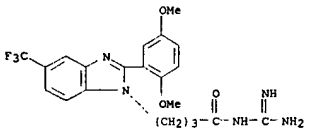


RN 459428-72-9 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-2-[3-chloro-5-methoxy-4-(1-methylethoxy)phenyl]-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

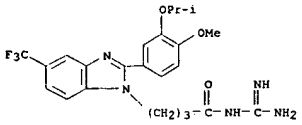
L4 ANSWER 39 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 459428-73-0 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-2-(2,5-dimethoxyphenyl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

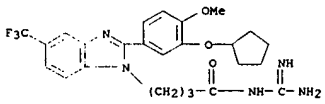


RN 459428-76-3 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-2-[4-methoxy-3-(1-methylethoxy)phenyl]-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

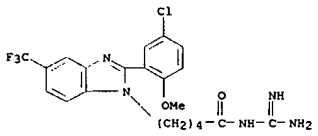


RN 459428-77-4 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-2-[3-(cyclopentyloxy)-4-methoxyphenyl]-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

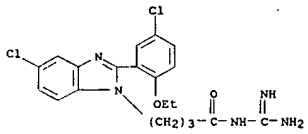
L4 ANSWER 39 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 459428-78-5 CAPLUS
CN 1H-Benzimidazole-1-pentanamide, N-(aminoiminomethyl)-2-(5-chloro-2-methoxyphenyl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)



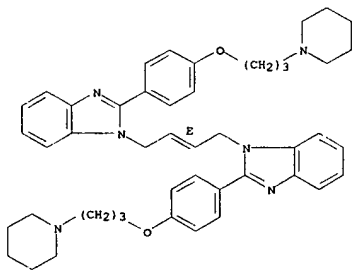
RN 459428-79-6 CAPLUS
CN 1H-Benzimidazole-1-butanamide, N-(aminoiminomethyl)-5-chloro-2-(5-chloro-2-ethoxyphenyl)- (9CI) (CA INDEX NAME)



L4 ANSWER 40 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 05 Sep 2002
ACCESSION NUMBER: 2002:668620 CAPLUS
DOCUMENT NUMBER: 138:314313
TITLE: Reevaluation of PNU-99194A discriminative stimulus effects. Potentiation by both a D2 antagonist and a D3/D2 agonist
AUTHOR(S): Baker, Lisa E.; Prus, Adam J.
CORPORATE SOURCE: Department of Psychology, Western Michigan University, Kalamazoo, MI, 49008, USA
SOURCE: Pharmacology, Biochemistry and Behavior (2002), 73(4), 753-758
CODEN: PBBHAU; ISSN: 0091-3057
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB This study evaluated the relative importance of D3 receptor antagonism in the discriminative stimulus effects of the putative D3 receptor antagonist PNU-99194A. Eight male Sprague-Dawley rats were trained to discriminate PNU-99194A (10 mg/kg s.c.) from vehicle in a two-choice drug discrimination procedure under a FR 20 schedule of food reinforcement. The selective D3 antagonists PD 152255 and S14297 were examined for stimulus generalization. The D2 antagonist haloperidol and the D2/D3 receptor agonist (+)-7-OH-DPAT were also assessed for antagonism of PNU-99194A discrimination. PD 152255 (1.0-3.0 mg/kg) engendered no generalization to PNU-99194A. Due to its markedly rate-suppressive effects, PD 152255 could not be tested at higher doses. S-14297 produced partial substitution (66%) for PNU-99194A at both 3.0 and 8.0 mg/kg. Neither haloperidol nor (+)-7-OH-DPAT blocked the discrimination of PNU-99194A and, surprisingly, actually appeared to potentiate its effects. These data, along with other recent findings, suggest that the discriminative stimulus effects of PNU-99194A appear to involve complex pharmacol. actions and are not solely mediated by D3 receptor antagonism.
IT 164917-23-1, PD 152255
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); BIOL (Biological study)
(reevaluation of D3 receptor antagonist PNU-99194A discriminative stimulus effects and potentiation by both a D2 antagonist and a D3/D2 agonist)
RN 164917-23-1 CAPLUS
CN 1H-Benzimidazole, 1,1'-(2E)-2-butene-1,4-diylbis[2-[4-[3-(1-piperidinyl)propoxy]phenyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

L4 ANSWER 40 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 41 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 19 Jul 2002
ACCESSION NUMBER: 2002:536587 CAPLUS
DOCUMENT NUMBER: 137:232595
TITLE: New Efficient Route for Solid-Phase Synthesis of Benzimidazole Derivatives
AUTHOR(S): Akamatsu, Hisashi; Fukase, Koichi; Kusumoto, Shoichi
CORPORATE SOURCE: Department of Chemistry Graduate School of Science, Osaka University, Osaka, 560-0043, Japan
SOURCE: Journal of Combinatorial Chemistry (2002), 4(5), 475-483
CODEN: JCCHFF; ISSN: 1520-4766
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 137:232595
GI

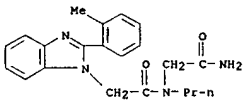
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Benzimidazoleacetamides such as I [R = H, Me, Cl, O2N, CO2H; R1 = H, Me, Cl; R2 = H, Me; R3 = EtCH2, Me2CH, PhCH2; R3 = 2-MeC6H4, 3-MeC6H4, 4-MeC6H4, 2,4-Me2C6H3, 4-Me2CHCH2C6H4, 4-Me3CC6H4, 3-F3CC6H4, 4-PhC6H4, 4-(2-pyridyl)C6H4, 3-ClC6H4, 2-Cl-6-FC6H3, 2-O2N-5-ClC6H3, 4-(AcNH)C6H4, 4-Me2NC6H4, 4-FC6H4, 3-O2NC6H4, 4-F3CC6H4, 2-ClC6H4, 2,3-Cl2C6H3, Ph, 4-MeOC6H4, 2,3-(MeO)2C6H3, 2-pyridyl, 3-pyridyl, 2-furyl, 2-pyrrolyl, 2-thienyl, 3-thienyl], imidazopyridineacetamides such as II and III (R4 = 3-O2NC6H4, Ph, 4-MeOC6H4) (4-aza and 5-azabenzimidazoles), and purineacetamides IV (R5 = 3-O2NC6H4, Ph, 4-MeOC6H4) containing peptoid linkers were prepared by a solid-phase synthesis from bromoacetic acid, primary amines, 1,2-benzenediamines, and aryl aldehydes. Deprotection of an Fmoc-amino resin with piperidine followed by acylation with bromoacetic acid and diisopropyl carbodiimide, nucleophilic substitution of the bromine with propylamine, isopropylamine, and benzylamine, and acylation of the secondary amine with bromoacetic acid and diisopropyl carbodiimide gives a resin-bound α-bromoamide PNHCOCH2NRCOCH2Br (P = polymer support; R = EtCH2, Me2CH, PhCH2). Addition of 1,2-benzenediamines to the resin-bound α-bromoamide followed by addition of aryl aldehydes and heating in toluene at 50° and cleavage from the resin with trifluoroacetic acid give I. If 2,3-pyridinediamine, 3,4-pyridinediamine, or 4,5-pyrimidinediamine are used instead of 1,2-benzenediamines, fused azabenzimidazoles II and III, and purineacetamides IV are obtained. 4-Nitro-1,2-benzenediamine and 3,4-diaminobenzoic acid undergo regioselective cyclocondensations on solid-phase to give 6-substituted benzimidazoleacetamides while 4-chloro-1,2-benzenediamine and 4-methyl-1,2-benzenediamines both give mixts. of regioisomers.

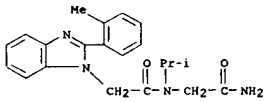
IT **459437-58-2P 459437-62-8P 459437-68-4P**
459437-72-0P 459437-77-5P 459437-82-2P
459437-87-7P 459437-93-5P 459437-97-9P
459438-01-8P 459438-05-2P 459438-09-6P
459438-12-1P 459438-16-5P 459438-19-8P
459438-23-4P 459438-27-8P 459438-31-4P
459438-35-8P 459438-38-1P 459438-42-7P
459438-45-0P 459438-48-3P 459438-51-8P
459438-54-1P 459438-56-3P 459438-58-5P
459438-61-0P 459438-64-3P 459438-67-6P

459438-70-1P 459438-73-4P 459438-76-7P
459438-78-9P 459438-81-4P 459438-84-7P
459438-86-9P 459438-88-1P 459438-90-5P
459438-92-7P 459438-94-9P 459438-96-1P
459438-98-3P 459439-00-0P 459439-02-2P
459439-04-4P 459439-06-6P 459439-08-8P
459439-10-2P 459439-12-4P 459439-14-6P
459439-16-8P 459439-18-0P 459439-20-4P
459439-22-6P 459439-24-8P 459439-26-0P
459439-28-2P 459439-70-4P 459439-72-6P
459439-74-8P 459439-76-0P 459440-12-1P
459440-14-3P 459440-16-5P 459440-18-7P
459440-20-1P 459440-22-3P 459440-24-5P
459440-26-7P 459440-28-9P 459440-30-3P
459440-32-5P 459440-35-8P 459440-37-0P
459440-39-2P 459440-41-6P 459440-43-8P
459440-45-0P 459440-47-2P 459440-49-4P
459440-51-8P 459440-53-0P 459440-55-2P
459440-57-4P 459440-60-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of substituted benzimidazoles on solid phase by the condensation of aryl diamines with resin-bound α-bromoamides followed by cyclocondensation with aryl aldehydes and resin cleavage)

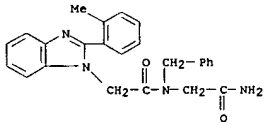
RN 459437-58-2 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(2-methylphenyl)-N-propyl- (9CI) (CA INDEX NAME)



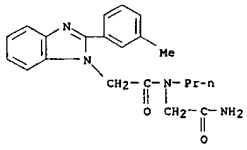
RN 459437-62-8 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-N-(1-methylethyl)-2-(2-methylphenyl)- (9CI) (CA INDEX NAME)



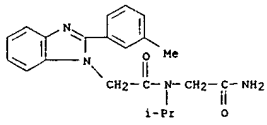
RN 459437-68-4 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(2-methylphenyl)-N-(phenylmethyl)- (9CI) (CA INDEX NAME)



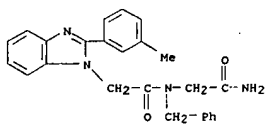
RN 459437-72-0 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(3-methylphenyl)-N-propyl- (9CI) (CA INDEX NAME)



RN 459437-77-5 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-N-(1-methylethyl)-2-(3-methylphenyl)- (9CI) (CA INDEX NAME)

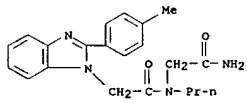


RN 459437-82-2 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(3-methylphenyl)-N-(phenylmethyl)- (9CI) (CA INDEX NAME)

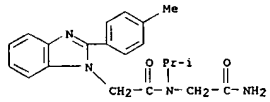


RN 459437-87-7 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(4-methylphenyl)-N-

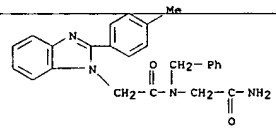
propyl- (9CI) (CA INDEX NAME)



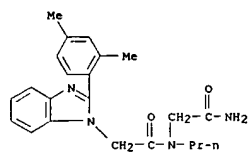
RN 459437-93-5 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-N-(1-methylethyl)-2-(4-methylphenyl)- (9CI) (CA INDEX NAME)



RN 459437-97-9 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(4-methylphenyl)-N-(phenylmethyl)- (9CI) (CA INDEX NAME)

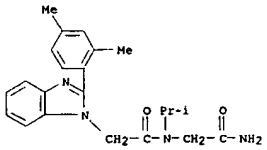


RN 459438-01-8 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(2,4-dimethylphenyl)-N-propyl- (9CI) (CA INDEX NAME)

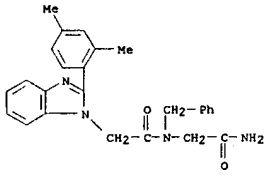


RN 459438-05-2 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(2,4-dimethylphenyl)-N-(1-methylethyl)- (9CI) (CA INDEX NAME)

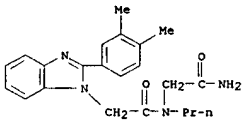
L4 ANSWER 41 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 459438-09-6 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(2,4-dimethylphenyl)-N-(phenylmethyl)- (9CI) (CA INDEX NAME)

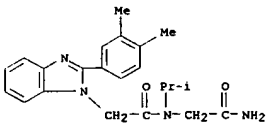


RN 459438-12-1 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(3,4-dimethylphenyl)-N-propyl- (9CI) (CA INDEX NAME)

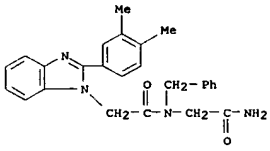


RN 459438-16-5 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(3,4-dimethylphenyl)-N-(1-methylethyl)- (9CI) (CA INDEX NAME)

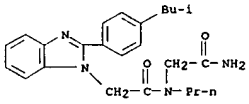
L4 ANSWER 41 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



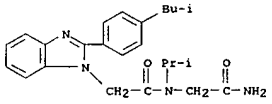
RN 459438-19-8 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(3,4-dimethylphenyl)-N-(phenylmethyl)- (9CI) (CA INDEX NAME)



RN 459438-23-4 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-[4-(2-methylpropyl)phenyl]-N-propyl- (9CI) (CA INDEX NAME)

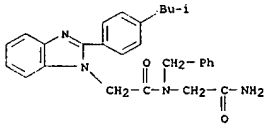


RN 459438-27-8 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-N-(1-methylethyl)-2-[4-(2-methylpropyl)phenyl]- (9CI) (CA INDEX NAME)

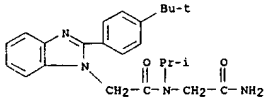


RN 459438-31-4 CAPLUS

L4 ANSWER 41 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-[4-(2-methylpropyl)phenyl]-N-(phenylmethyl)- (9CI) (CA INDEX NAME)

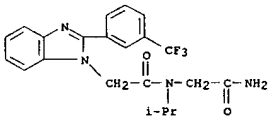


RN 459438-35-8 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-[4-(1,1-dimethylethyl)phenyl]-N-(1-methylethyl)- (9CI) (CA INDEX NAME)

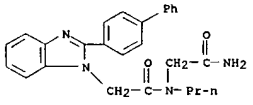


RN 459438-38-1 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-[4-(1,1-dimethylethyl)phenyl]-N-(phenylmethyl)- (9CI) (CA INDEX NAME)

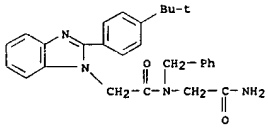
L4 ANSWER 41 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
RN 459438-45-0 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-N-(1-methylethyl)-2-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



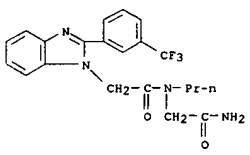
RN 459438-48-3 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-[1,1'-biphenyl]-4-yl-N-propyl- (9CI) (CA INDEX NAME)

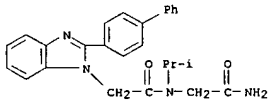


RN 459438-51-8 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-[1,1'-biphenyl]-4-yl-N-(1-methylethyl)- (9CI) (CA INDEX NAME)

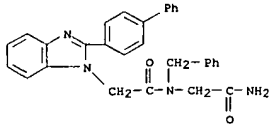


RN 459438-42-7 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-N-propyl-2-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



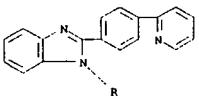


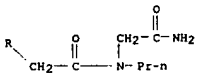
RN 459438-54-1 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-[1,1'-biphenyl]-4-yl-N-(phenylmethyl)- (9CI) (CA INDEX NAME)



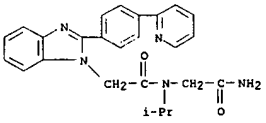
RN 459438-56-3 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-N-propyl-2-[4-(2-pyridinyl)phenyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 41 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

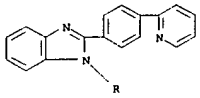


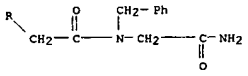


RN 459438-58-5 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-N-(1-methylethyl)-2-[4-(2-pyridinyl)phenyl]- (9CI) (CA INDEX NAME)



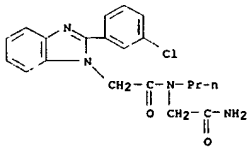
RN 459438-61-0 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-N-(phenylmethyl)-2-[4-(2-pyridinyl)phenyl]- (9CI) (CA INDEX NAME)



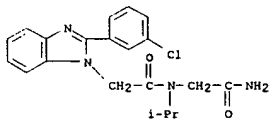


RN 459438-64-3 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(3-chlorophenyl)-N-propyl- (9CI) (CA INDEX NAME)

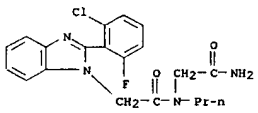
L4 ANSWER 41 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



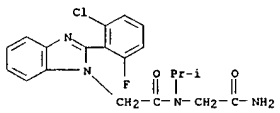
RN 459438-67-6 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(3-chlorophenyl)-N-(1-methylethyl)- (9CI) (CA INDEX NAME)



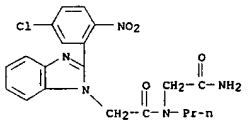
RN 459438-70-1 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(2-chloro-6-fluorophenyl)-N-propyl- (9CI) (CA INDEX NAME)



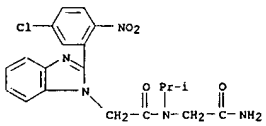
RN 459438-73-4 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(2-chloro-6-fluorophenyl)-N-(1-methylethyl)- (9CI) (CA INDEX NAME)



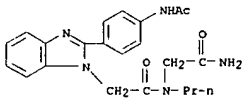
L4 ANSWER 41 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
RN 459438-76-7 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(5-chloro-2-nitrophenyl)-N-propyl- (9CI) (CA INDEX NAME)



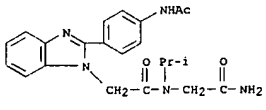
RN 459438-78-9 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(5-chloro-2-nitrophenyl)-N-(1-methylethyl)- (9CI) (CA INDEX NAME)



RN 459438-81-4 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-[4-(acetylamino)phenyl]-N-(2-amino-2-oxoethyl)-N-propyl- (9CI) (CA INDEX NAME)

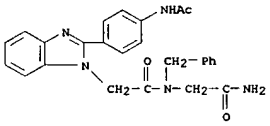


RN 459438-84-7 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-[4-(acetylamino)phenyl]-N-(2-amino-2-oxoethyl)-N-(1-methylethyl)- (9CI) (CA INDEX NAME)

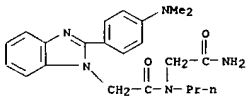


RN 459438-86-9 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-[4-(acetylamino)phenyl]-N-(2-amino-2-

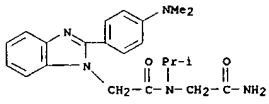
L4 ANSWER 41 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
oxoethyl)-N-(phenylmethyl)- (9CI) (CA INDEX NAME)



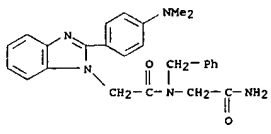
RN 459438-88-1 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-[4-(dimethylamino)phenyl]-N-propyl- (9CI) (CA INDEX NAME)



RN 459438-90-5 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-[4-(dimethylamino)phenyl]-N-(1-methylethyl)- (9CI) (CA INDEX NAME)

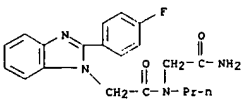


RN 459438-92-7 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-[4-(dimethylamino)phenyl]-N-(phenylmethyl)- (9CI) (CA INDEX NAME)

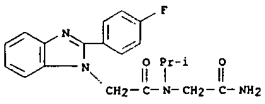


RN 459438-94-9 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(4-fluorophenyl)-N-propyl- (9CI) (CA INDEX NAME)

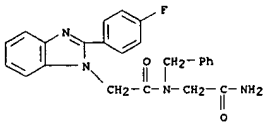
L4 ANSWER 41 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



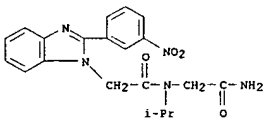
RN 459438-96-1 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(4-fluorophenyl)-N-(1-methylethyl)- (9CI) (CA INDEX NAME)



RN 459438-98-3 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(4-fluorophenyl)-N-(phenylmethyl)- (9CI) (CA INDEX NAME)

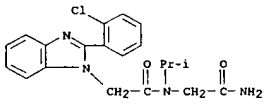


RN 459439-00-0 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-N-(1-methylethyl)-2-(3-nitrophenyl)- (9CI) (CA INDEX NAME)

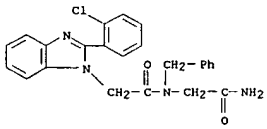


RN 459439-02-2 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(3-nitrophenyl)-N-(phenylmethyl)- (9CI) (CA INDEX NAME)

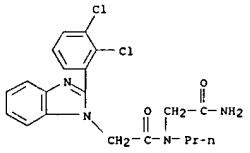
L4 ANSWER 41 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(2-chlorophenyl)-N-(1-methylethyl)- (9CI) (CA INDEX NAME)



RN 459439-12-4 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(2-chlorophenyl)-N-(phenylmethyl)- (9CI) (CA INDEX NAME)

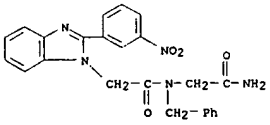


RN 459439-14-6 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(2,3-dichlorophenyl)-N-propyl- (9CI) (CA INDEX NAME)

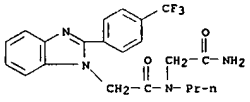


RN 459439-16-8 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(2,3-dichlorophenyl)-N-(1-methylethyl)- (9CI) (CA INDEX NAME)

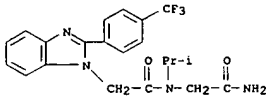
L4 ANSWER 41 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



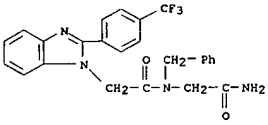
RN 459439-04-4 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-N-propyl-2-[4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 459439-06-6 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-N-(1-methylethyl)-2-[4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

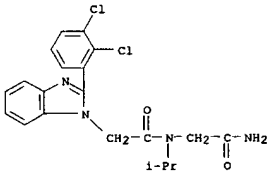


RN 459439-08-8 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-N-(phenylmethyl)-2-[4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

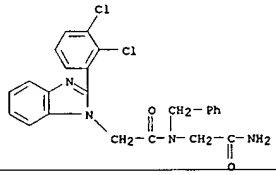


RN 459439-10-2 CAPLUS

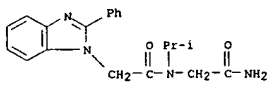
L4 ANSWER 41 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



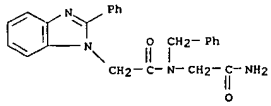
RN 459439-18-0 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(2,3-dichlorophenyl)-N-(phenylmethyl)- (9CI) (CA INDEX NAME)



RN 459439-20-4 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-N-(1-methylethyl)-2-phenyl- (9CI) (CA INDEX NAME)

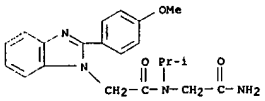


RN 459439-22-6 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-phenyl-N-(phenylmethyl)- (9CI) (CA INDEX NAME)

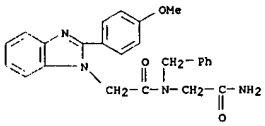


RN 459439-24-8 CAPLUS

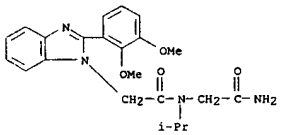
L4 ANSWER 41 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(4-methoxyphenyl)-N-(1-methylethyl)- (9CI) (CA INDEX NAME)



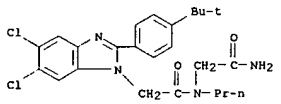
RN 459439-26-0 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(4-methoxyphenyl)-N-(phenylmethyl)- (9CI) (CA INDEX NAME)



RN 459439-28-2 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(2,3-dimethoxyphenyl)-N-(1-methylethyl)- (9CI) (CA INDEX NAME)

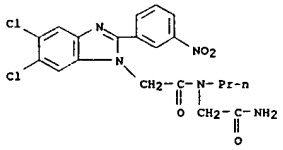


RN 459439-70-4 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-5,6-dichloro-2-[4-(1,1-dimethylethyl)phenyl]-N-propyl- (9CI) (CA INDEX NAME)

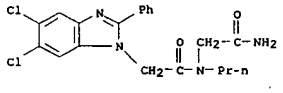


L4 ANSWER 41 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

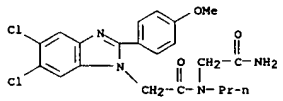
RN 459439-72-6 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-5,6-dichloro-2-(3-nitrophenyl)-N-propyl- (9CI) (CA INDEX NAME)



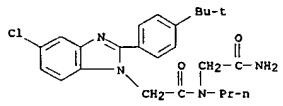
RN 459439-74-8 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-5,6-dichloro-2-phenyl-N-propyl- (9CI) (CA INDEX NAME)



RN 459439-76-0 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-5,6-dichloro-2-(4-methoxyphenyl)-N-propyl- (9CI) (CA INDEX NAME)

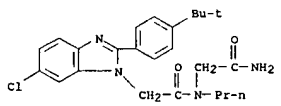


RN 459440-12-1 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-5-chloro-2-[4-(1,1-dimethylethyl)phenyl]-N-propyl- (9CI) (CA INDEX NAME)

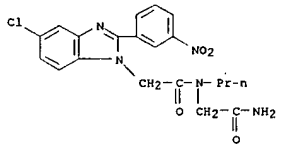


L4 ANSWER 41 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

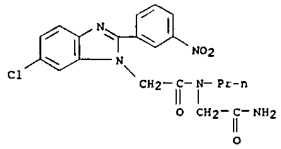
RN 459440-14-3 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-6-chloro-2-[4-(1,1-dimethylethyl)phenyl]-N-propyl- (9CI) (CA INDEX NAME)



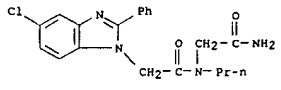
RN 459440-16-5 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-5-chloro-2-(3-nitrophenyl)-N-propyl- (9CI) (CA INDEX NAME)



RN 459440-18-7 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-6-chloro-2-(3-nitrophenyl)-N-propyl- (9CI) (CA INDEX NAME)

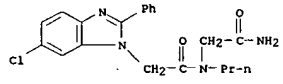


RN 459440-20-1 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-5-chloro-2-phenyl-N-propyl- (9CI) (CA INDEX NAME)

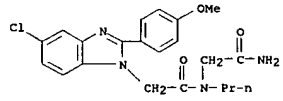


L4 ANSWER 41 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

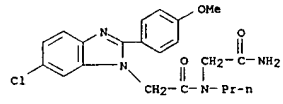
RN 459440-22-3 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-6-chloro-2-phenyl-N-propyl- (9CI) (CA INDEX NAME)



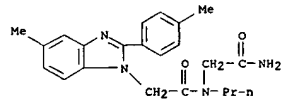
RN 459440-24-5 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-5-chloro-2-(4-methoxyphenyl)-N-propyl- (9CI) (CA INDEX NAME)



RN 459440-26-7 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-6-chloro-2-(4-methoxyphenyl)-N-propyl- (9CI) (CA INDEX NAME)

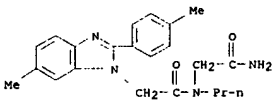


RN 459440-28-9 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-5-methyl-2-(4-methylphenyl)-N-propyl- (9CI) (CA INDEX NAME)

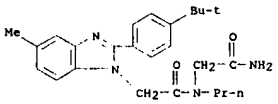


RN 459440-30-3 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-6-methyl-2-(4-methylphenyl)-N-propyl- (9CI) (CA INDEX NAME)

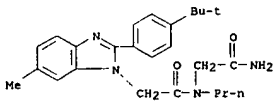
L4 ANSWER 41 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



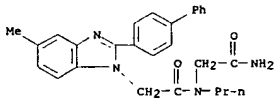
RN 459440-32-5 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-[4-(1,1-dimethylethyl)phenyl]-5-methyl-N-propyl- (9CI) (CA INDEX NAME)



RN 459440-35-8 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-[4-(1,1-dimethylethyl)phenyl]-6-methyl-N-propyl- (9CI) (CA INDEX NAME)

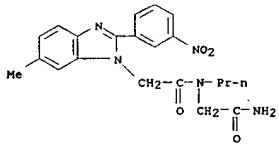


RN 459440-37-0 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-[1,1'-biphenyl]-4-yl-5-methyl-N-propyl- (9CI) (CA INDEX NAME)

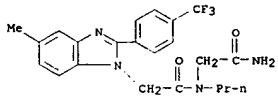


RN 459440-39-2 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-[1,1'-biphenyl]-4-yl-6-methyl-N-propyl- (9CI) (CA INDEX NAME)

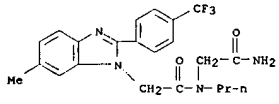
L4 ANSWER 41 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



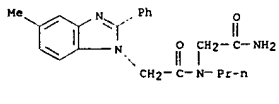
RN 459440-49-4 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-5-methyl-N-propyl-2-[4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 459440-51-8 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-6-methyl-N-propyl-2-[4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

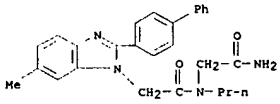


RN 459440-53-0 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-5-methyl-2-phenyl-N-propyl- (9CI) (CA INDEX NAME)

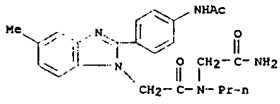


RN 459440-55-2 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-6-methyl-2-phenyl-N-propyl- (9CI) (CA INDEX NAME)

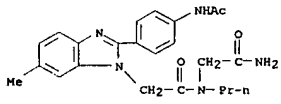
L4 ANSWER 41 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



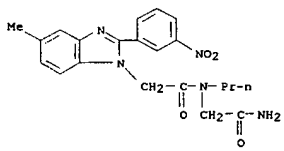
RN 459440-41-6 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-[4-(acetylamino)phenyl]-N-(2-amino-2-oxoethyl)-5-methyl-N-propyl- (9CI) (CA INDEX NAME)



RN 459440-43-8 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-[4-(acetylamino)phenyl]-N-(2-amino-2-oxoethyl)-6-methyl-N-propyl- (9CI) (CA INDEX NAME)

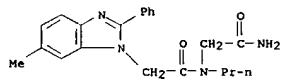


RN 459440-45-0 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-5-methyl-2-(3-nitrophenyl)-N-propyl- (9CI) (CA INDEX NAME)

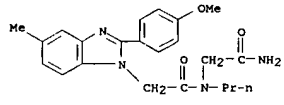


RN 459440-47-2 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-6-methyl-2-(3-nitrophenyl)-N-propyl- (9CI) (CA INDEX NAME)

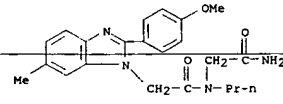
L4 ANSWER 41 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 459440-57-4 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(4-methoxyphenyl)-5-methyl-N-propyl- (9CI) (CA INDEX NAME)

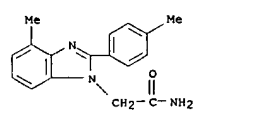


RN 459440-60-9 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(4-methoxyphenyl)-6-methyl-N-propyl- (9CI) (CA INDEX NAME)



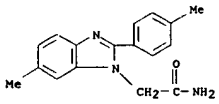
IT **459440-91-6P 459440-93-8P 459440-95-0P 459440-97-2P 459440-99-4P 459441-01-1P 459441-03-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of substituted benzimidazoles with shortened linkers on solid phase by the condensation of aryl diamines with resin-bound α-bromoacetamide followed by cyclocondensation with aryl aldehydes and resin cleavage)

RN 459440-91-6 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 4-methyl-2-(4-methylphenyl)- (9CI) (CA INDEX NAME)

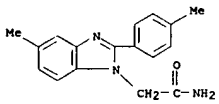


RN 459440-93-8 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 6-methyl-2-(4-methylphenyl)- (9CI) (CA INDEX NAME)

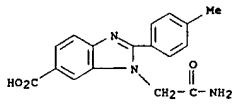
L4 ANSWER 41 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



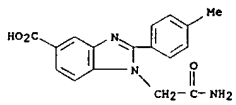
RN 459440-95-0 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 5-methyl-2-(4-methylphenyl)- (9CI) (CA INDEX NAME)



RN 459440-97-2 CAPLUS
CN 1H-Benzimidazole-6-carboxylic acid, 1-(2-amino-2-oxoethyl)-2-(4-methylphenyl)- (9CI) (CA INDEX NAME)

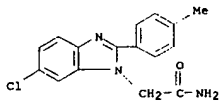


RN 459440-99-4 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 1-(2-amino-2-oxoethyl)-2-(4-methylphenyl)- (9CI) (CA INDEX NAME)

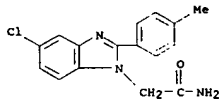


RN 459441-01-1 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 6-chloro-2-(4-methylphenyl)- (9CI) (CA INDEX NAME)

L4 ANSWER 41 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

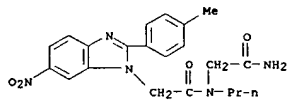


RN 459441-03-3 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 5-chloro-2-(4-methylphenyl)- (9CI) (CA INDEX NAME)



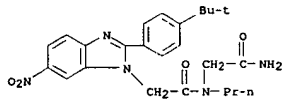
IT 459439-78-2P 459439-80-6P 459439-82-8P
459439-84-0P 459439-86-2P 459439-88-4P
459439-90-8P 459439-92-0P 459439-96-4P
459439-98-6P 459440-00-7P 459440-02-9P
459440-04-1P 459440-06-3P 459440-08-5P
459440-69-8P 459440-72-3P 459440-75-6P
459440-78-9P 459440-81-4P 459440-84-7P
459440-87-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(regioselective preparation of substituted benzimidazoles on solid phase by the condensation of 3-Me, 4-nitro and 4-carboxybenzenediamines with resin-bound α-bromoamides followed by cyclocondensation with aryl aldehydes and resin cleavage)

RN 459439-78-2 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(4-methylphenyl)-6-nitro-N-propyl- (9CI) (CA INDEX NAME)

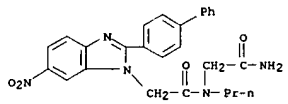


RN 459439-80-6 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-[4-(1,1-dimethylethyl)phenyl]-6-nitro-N-propyl- (9CI) (CA INDEX NAME)

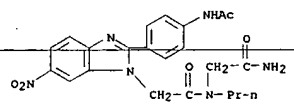
L4 ANSWER 41 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



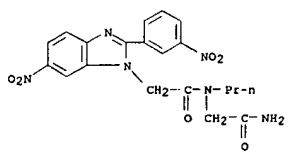
RN 459439-82-8 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-[1,1'-biphenyl]-4-yl-6-nitro-N-propyl- (9CI) (CA INDEX NAME)



RN 459439-84-0 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-[4-(acetylamino)phenyl]-N-(2-amino-2-oxoethyl)-6-nitro-N-propyl- (9CI) (CA INDEX NAME)

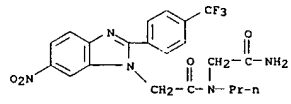


RN 459439-86-2 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-6-nitro-2-(3-nitrophenyl)-N-propyl- (9CI) (CA INDEX NAME)

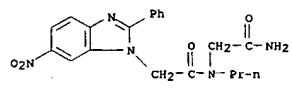


RN 459439-88-4 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-6-nitro-N-propyl-2-[4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

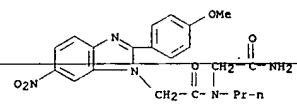
L4 ANSWER 41 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



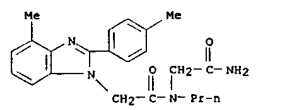
RN 459439-90-8 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-6-nitro-2-phenyl-N-propyl- (9CI) (CA INDEX NAME)



RN 459439-92-0 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(4-methoxyphenyl)-6-nitro-N-propyl- (9CI) (CA INDEX NAME)

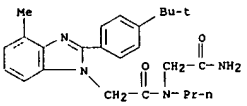


RN 459439-96-4 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-4-methyl-2-(4-methylphenyl)-N-propyl- (9CI) (CA INDEX NAME)

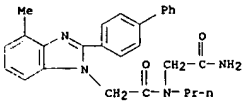


RN 459439-98-6 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-[4-(1,1-dimethylethyl)phenyl]-4-methyl-N-propyl- (9CI) (CA INDEX NAME)

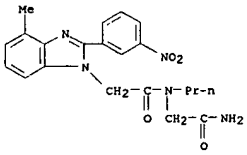
L4 ANSWER 41 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



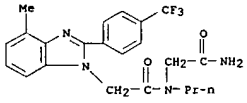
RN 459440-00-7 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-[1,1'-biphenyl]-4-yl-4-methyl-N-propyl- (9CI) (CA INDEX NAME)



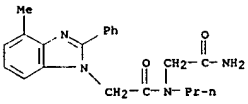
RN 459440-02-9 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-4-methyl-2-(3-nitrophenyl)-N-propyl- (9CI) (CA INDEX NAME)



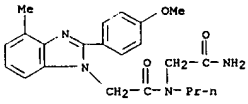
RN 459440-04-1 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-4-methyl-N-propyl-2-[4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



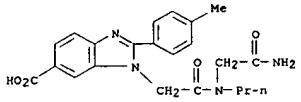
RN 459440-06-3 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-4-methyl-2-phenyl-N-propyl- (9CI) (CA INDEX NAME)



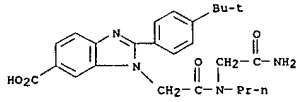
RN 459440-08-5 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(2-amino-2-oxoethyl)-2-(4-methoxyphenyl)-4-methyl-N-propyl- (9CI) (CA INDEX NAME)



RN 459440-69-8 CAPLUS
CN 1H-Benzimidazole-6-carboxylic acid, 1-[2-[(2-amino-2-oxoethyl)propylamino]-2-oxoethyl]-2-(4-methylphenyl)- (9CI) (CA INDEX NAME)

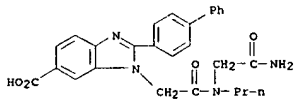


RN 459440-72-3 CAPLUS
CN 1H-Benzimidazole-6-carboxylic acid, 1-[2-[(2-amino-2-oxoethyl)propylamino]-2-oxoethyl]-2-[4-(1,1-dimethylethyl)phenyl]- (9CI) (CA INDEX NAME)

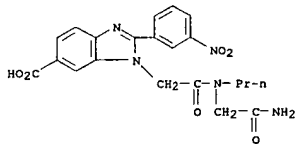


RN 459440-75-6 CAPLUS
CN 1H-Benzimidazole-6-carboxylic acid, 1-[2-[(2-amino-2-oxoethyl)propylamino]-2-oxoethyl]-2-[1,1'-biphenyl]-4-yl- (9CI) (CA INDEX NAME)

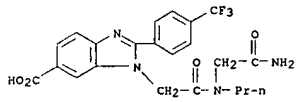
L4 ANSWER 41 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



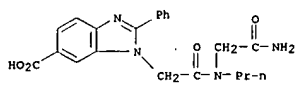
RN 459440-78-9 CAPLUS
CN 1H-Benzimidazole-6-carboxylic acid, 1-[2-[(2-amino-2-oxoethyl)propylamino]-2-oxoethyl]-2-(3-nitrophenyl)- (9CI) (CA INDEX NAME)



RN 459440-81-4 CAPLUS
CN 1H-Benzimidazole-6-carboxylic acid, 1-[2-[(2-amino-2-oxoethyl)propylamino]-2-oxoethyl]-2-[4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

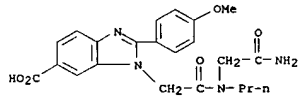


RN 459440-84-7 CAPLUS
CN 1H-Benzimidazole-6-carboxylic acid, 1-[2-[(2-amino-2-oxoethyl)propylamino]-2-oxoethyl]-2-phenyl- (9CI) (CA INDEX NAME)



RN 459440-87-0 CAPLUS
CN 1H-Benzimidazole-6-carboxylic acid, 1-[2-[(2-amino-2-oxoethyl)propylamino]-2-oxoethyl]-2-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

L4 ANSWER 41 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

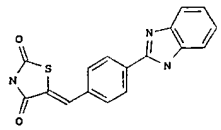


REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 42 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 05 Jul 2002
ACCESSION NUMBER: 2002:504618 CAPLUS
DOCUMENT NUMBER: 137:63244
TITLE: Preparation of 5-[4-(2-benzimidazolyl)phenyl]methylene-2,4-dioxothiazolidines as telomerase inhibitors
INVENTOR(S): Akama, Tsutomu; Holcomb, Ryan; Tolman, Richard L.
PATENT ASSIGNEE(S): Geron Corporation, USA; Kyowa Hakko Kogyo Co., Ltd.
SOURCE: PCT Int. Appl., 62 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002051409	A1	20020704	WO 2001-US48779	20011217
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2002120144	A1	20020829	US 2000-748622	20001222
US 6452014	B1	20020917		
PRIORITY APPLN. INFO.:			US 2000-748622 A	20001222

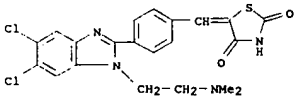
OTHER SOURCE(S): MARPAT 137:63244
GI



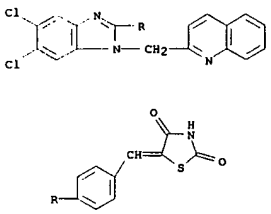
I

AB Title compds. were prepared Thus, 4-{(MeO)2HC]C6H4CHO was condensed with 2,4-thiazolidinedione and the deprotected product cyclocondensed with 2-(H2N)C6H4NH2 to give title compound I. Data for biol. activity of title compds. were given.
IT **439814-24-1P 439814-29-6P 439814-30-9P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 5-[4-(2-benzimidazolyl)phenyl]methylene-2,4-dioxothiazolidines as telomerase inhibitors)
RN 439814-24-1 CAPLUS
CN 2,4-Thiazolidinedione, 5-[[4-[5,6-dichloro-1-[2-(dimethylamino)ethyl]-1H-benzimidazol-2-yl]phenyl]methylene]- (9CI) (CA INDEX NAME)

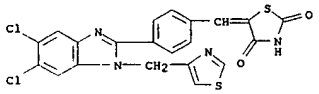
L4 ANSWER 42 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 439814-29-6 CAPLUS
CN 2,4-Thiazolidinedione, 5-[[4-[5,6-dichloro-1-(2-quinolinylmethyl)-1H-benzimidazol-2-yl]phenyl]methylene]- (9CI) (CA INDEX NAME)



RN 439814-30-9 CAPLUS
CN 2,4-Thiazolidinedione, 5-[[4-[5,6-dichloro-1-(4-thiazolylmethyl)-1H-benzimidazol-2-yl]phenyl]methylene]- (9CI) (CA INDEX NAME)

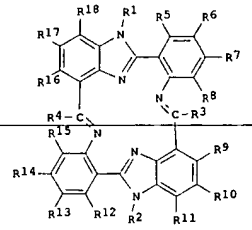


REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 43 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 25 Apr 2002
ACCESSION NUMBER: 2002:312035 CAPLUS
DOCUMENT NUMBER: 136:318381
TITLE: Cyclic bis-benzimidazole ligands and metal complexes thereof
INVENTOR(S): Chan, Michael K.; Kwok, Wai H.; Zhang, Huichang; Duan, Maosheng
PATENT ASSIGNEE(S): The Ohio State University, USA
SOURCE: U.S., 33 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6376664	B1	20020423	US 2000-528273	20000317
PRIORITY APPLN. INFO.:			US 1999-124906P P	19990317

OTHER SOURCE(S): CASREACT 136:318381; MARPAT 136:318381
GI

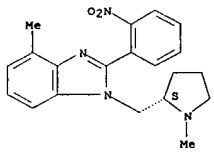


I

AB Cyclic bis benzimidazole ligands I are formed by contacting a (2-aminophenyl)benzimidazole-4-carboxaldehyde ethylene acetal or a (2-nitrophenyl)benzimidazole-4-carboxaldehyde with an acid optionally in the presence of a metal or a metal salt, wherein R1 and R2 may be the same or different and are selected from H, an alkyl having 1 to 10 C atoms, a benzyl group, a substituted 2-ethylphenyl group, a carbonyl group, a Ph substituent, a tosyl group, and an alkylsulfonate group; R3 and R4 may be the same or different and are selected from H, Me, and Et; and R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, and R18 may be the same or different and are selected from H, alkyl having 1 to 10 C atoms, fluoride, chloride, bromide, iodide, nitro, amino, a carboxylate, an ester, and a Ph group. For example, [MnLCl]Cl (L = I (R1 = R2 = Me; R3-18 = H)) was prepared from 4-hydroxymethyl-2,1,3-benzothiadiazole and 2-nitrophenyl-1-carboxaldehyde in a multi-step process and its crystal structure and reversible oxidation potential determined The complex exhibits antiferromagnetic coupling and characterized by ESR and UV spectra.
IT **412008-74-3P 412008-75-4P 412008-76-5P**
412008-78-7P 412008-79-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

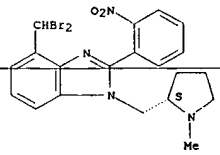
L4 ANSWER 43 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
(prepn. and reactant for prepn. of transition metal diiminotetrabenzotetraazacyclohexadecine complexes)
RN 412008-74-3 CAPLUS
CN 1H-Benzimidazole, 4-methyl-1-[[(2S)-1-methyl-2-pyrrolidinyl]methyl]-2-(2-nitrophenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



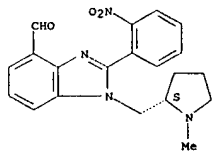
RN 412008-75-4 CAPLUS
CN 1H-Benzimidazole, 4-(dibromomethyl)-1-[[(2S)-1-methyl-2-pyrrolidinyl]methyl]-2-(2-nitrophenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 412008-76-5 CAPLUS
CN 1H-Benzimidazole-4-carboxaldehyde, 1-[[(2S)-1-methyl-2-pyrrolidinyl]methyl]-2-(2-nitrophenyl)- (9CI) (CA INDEX NAME)

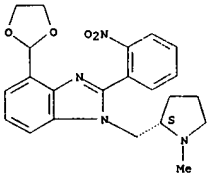
Absolute stereochemistry. Rotation (-).



RN 412008-78-7 CAPLUS
CN 1H-Benzimidazole, 4-(1,3-dioxolan-2-yl)-1-[[(2S)-1-methyl-2-pyrrolidinyl]methyl]-2-(2-nitrophenyl)- (9CI) (CA INDEX NAME)

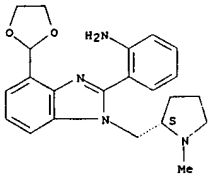
L4 ANSWER 43 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

Absolute stereochemistry. Rotation (-).



RN 412008-79-8 CAPLUS
CN Benzenamine, 2-[4-(1,3-dioxolan-2-yl)-1-[[(2S)-1-methyl-2-pyrrolidinyl]methyl]-1H-benzimidazol-2-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

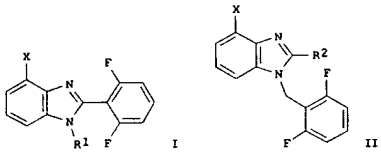


REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 44 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 11 Apr 2002
ACCESSION NUMBER: 2002:272007 CAPLUS
DOCUMENT NUMBER: 136:294830
TITLE: Substituted benzimidazoles as non-nucleoside inhibitors of reverse transcriptase
INVENTOR(S): Michejda, Christopher J.; Morningstar, Marshall; Roth, Thomas
PATENT ASSIGNEE(S): The United States of America as Represented by the Department of Health and Human Services, USA
SOURCE: U.S., 60 pp., Cont.-in-part of Appl. No. PCT/US98/03588.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6369235	B1	20020409	US 2000-380171	20000201
WO 9837072	A1	19980827	WO 1998-US3588	19980224
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 2003191160	A1	20031009	US 2002-119634	20020409
US 6894068	B2	20050517		
PRIORITY APPLN. INFO.:			US 1997-38509P	P 19970225
			WO 1998-US3588	A2 19980224
			US 2000-380171	A1 20000201
OTHER SOURCE(S):	MARPAT 136:294830			

GI

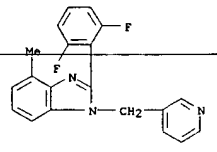


AB The invention provides compns. and methods for the treatment of HIV infection. In particular, the invention provides non-nucleoside inhibitors of reverse transcriptase (RT), as well as methods to treat HIV infection using them. In preferred embodiments, a novel class of

L4 ANSWER 44 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
substituted benzimidazoles, effective in the inhibition of human immunodeficiency virus (HIV) RT, are provided. The claimed compds. include I and II [X = H, Me, Et, CN, OMe, NO2, NH2, NHAc, NHMe, NMe2, CHMe2, C(:CH2)Me, Br, Cl; R1 = 2,6-difluorobenzyl, CH2Ph, ethylbenzyl, 2,6-dichlorobenzyl, 2,3,4,5,6-pentafluorobenzyl, pyridylmethyl, SO2Ph, 2,6-difluorobenzoyl, 3,3-dimethylallyl; R2 = Ph, CHO, iso-Pr, H, Me, cyclopropyl, CH2OH, 2,6-difluorobenzyloxymethyl, 2,6-difluorophenyl, 2-fluoro-6-methoxyphenyl, methylphenyl, pyridyl, naphthyl, etc.]. For instance, 2-amino-3-nitrophenol underwent O-methylation (82%), N,N-diacylation with 2,6-difluorobenzoyl chloride (92%), hydrazinolysis of one acyl group (96%), redn. of the nitro group with Fe powder with concomitant cyclization to give a benzimidazole (86%), and N-alkylation with 2,6-difluoro-α-bromotoluene (91%), to give I [X = OMe, R1 = 2,6-difluorobenzyl]. This compd. gave 85% inhibition of RT at 1 μM in vitro; it was also 100-fold more potent than TZB and TIBO and comparable to 8-chloro-TIBO and nevirapine in potency.

IT **199594-77-9P**, 1-(3-Pyridylmethyl)-2-(2,6-difluorophenyl)-4-methylbenzimidazole
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of substituted benzimidazoles as non-nucleoside inhibitors of reverse transcriptase)

RN 199594-77-9 CAPLUS
CN 1H-Benzimidazole, 2-(2,6-difluorophenyl)-4-methyl-1-(3-pyridinylmethyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 68 THERE ARE 68 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 45 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 22 Feb 2002
ACCESSION NUMBER: 2002:143285 CAPLUS
DOCUMENT NUMBER: 136:200107
TITLE: Preparation of indoles and azaindoles as tachykinin antagonists
INVENTOR(S): Dinnell, Kevin; Elliott, Jason Matthew; Hollingworth, Gregory John; Shaw, Duncan Edward
PATENT ASSIGNEE(S): Merck Sharp & Dohme Ltd., UK
SOURCE: U.S. Pat. Appl. Publ., 26 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002022624	A1	20020221	US 2001-903108	20010711
US 6476045	B2	20021105		
PRIORITY APPLN. INFO.:			GB 2000-17256	A 20000713
OTHER SOURCE(S):	CASREACT 136:200107; MARPAT 136:200107			

GI

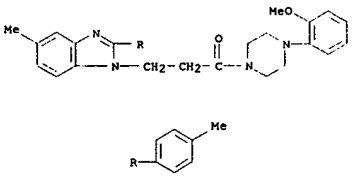
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title compds. [I; Het = II-VI (wherein the dotted line represents an optional double bond; A completes a fused pyridine ring; and B completes a fused benzene or pyridine ring); X = O, S, H2, :NH, :N(alkyl); Y = alkylene, alkenylene, alkynylene; Z = CR5R6, NR7; R1a, R1b = H, alkyl, alkoxy, etc.; R2 = H, alkyl, fluoroalkyl, etc.; R3 = (un)substituted Ph, biphenyl, naphthyl, etc.; R4 = H, alkyl, CO, etc.; R5, R6 = H, halo, alkyl, etc.; R7 = alkyl, cycloalkyl, naphthyl, etc.] which are of particular use in the treatment or prevention of depression, anxiety, pain, inflammation, migraine, emesis or postherpetic neuralgia, were prepared Thus, treating Me 5-chloro-2-(4-chlorophenyl)-1-methyl-1H-pyrrolo[2,3-b]pyridine-3-propanoate (preparation given) with LiOH in MeOH/THF/H2O followed by reaction of the resulting acid with 4-(phenylmethyl)-4-piperidinol in the presence of 1-hydroxybenzotriazole, Et3N and 1-(3-dimethylaminopropyl)-3-ethylcarbodiimide.HCl in THF afforded 83% 1-[3-(5-chloro-2-(4-chlorophenyl)-1-methyl-1H-pyrrolo[2,3-b]pyridin-3-yl]-1-oxopropyl)-4-(phenylmethyl)-4-piperidinol.

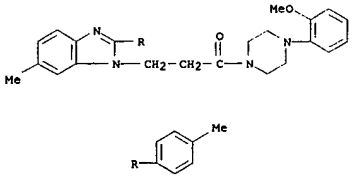
IT **400776-93-4P 400776-96-7P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of indoles and azaindoles as tachykinin antagonists)

RN 400776-93-4 CAPLUS
CN Piperazine, 1-(2-methoxyphenyl)-4-[3-[5-methyl-2-(4-methylphenyl)-1H-benzimidazol-1-yl]-1-oxopropyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 45 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



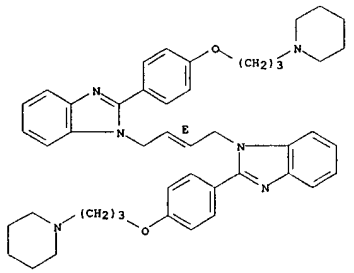
RN 400776-96-7 CAPLUS
CN Piperazine, 1-(2-methoxyphenyl)-4-[3-[6-methyl-2-(4-methylphenyl)-1H-benzimidazol-1-yl]-1-oxopropyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 46 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 14 Nov 2001
ACCESSION NUMBER: 2001:826500 CAPLUS
DOCUMENT NUMBER: 137:41573
TITLE: Common discriminative stimulus properties in rats of muscarinic antagonists, clozapine and the D3 preferring antagonist PNU-99194A: an analysis of possible mechanisms
AUTHOR(S): Goudie, A. J.; Baker, L. E.; Smith, J. A.; Prus, A. J.; Svensson, K. A.; Cortes-Burgos, L. A.; Wong, E. H. F.; Haadsma-Svensson, S.
CORPORATE SOURCE: Psychology Department, Liverpool University, Liverpool, UK
SOURCE: Behavioural Pharmacology (2001), 12(5), 303-315
CODEN: BPHAEL; ISSN: 0955-8810
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Dopamine D3 receptors have been implicated in the etiol. of schizophrenia and the actions of antipsychotic drugs. The initial studies reported here assessed the involvement of such receptors in the in vivo actions of the atypical antipsychotic clozapine and the putative D3-preferring antagonist PNU-99194A in drug discrimination assays. Rats trained to discriminate clozapine consistently generalized to PNU-99194A in two sep. studies. However, four other putative D3-preferring antagonists (PD 152255, (+)-S14297, nafadotride and (+)-AJ 76) did not induce generalization to clozapine. In rats trained to discriminate PNU-99194A, which has been suggested to induce a stimulus mediated specifically by D3 antagonism, the D3-preferring antagonist (+)-UH 232 and clozapine both induced full generalization. However, the PNU-99194A-trained animals also generalized fully to the muscarinic antagonists scopolamine and trihexyphenidyl. A possible explanation for the sym. generalization observed between clozapine and PNU-99194A is that these drugs have common muscarinic antagonist actions, since muscarinic antagonists have been reported to substitute for clozapine in numerous prior studies. However, in vitro receptor binding studies with M1-M5 receptors indicated that (with the possible exception of the M4 receptor), no muscarinic receptor subtype had high affinity for both clozapine, PNU-99194A and scopolamine. In addition, other binding studies indicated that whereas clozapine and PNU-99194A had high affinity for the D3 receptor, scopolamine did not. It is therefore concluded that: (1) The generalization seen between clozapine, PNU-99194A and muscarinic antagonists may be mediated by common effects 'downstream' from either muscarinic or D3 receptors; (2) D3 antagonism does not play a critical role in the clozapine stimulus (since D3-preferring antagonists did not consistently induce generalization to clozapine); (3) although D3 antagonism plays a role in the PNU-91994A stimulus, since the D3-preferring antagonist (+)-UH 232 induced full generalization, in accord with results from prior studies with other D3-preferring antagonists, the PNU-99194A stimulus also has commonalities with that induced by muscarinic antagonists and clozapine. The in vivo differences observed between PNU-99194A and other D3-preferring antagonists should be borne in mind when this agent is used as a tool to study D3 receptor functioning in vivo. The similarities between the PNU-99194A and clozapine stimuli suggest tentatively that compds. with a profile like PNU-99194A may have antipsychotic actions similar to clozapine. Some preclin. data are suggestive of such effects of PNU-99194A.
IT 164917-23-1, PD 152255
RL: PAC (Pharmacological activity); BIOL (Biological study)
(common discriminative stimulus properties in rats of muscarinic

L4 ANSWER 46 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
antagonists, clozapine and the D3 preferring antagonist PNU-99194A: an anal. of possible mechanisms)
RN 164917-23-1 CAPLUS
CN 1H-Benzimidazole, 1,1'-(2E)-2-butene-1,4-diylbis[2-[4-[3-(1-piperidinyl)propoxy]phenyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



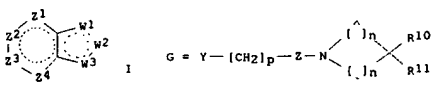
REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 47 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 09 Nov 2001
ACCESSION NUMBER: 2001:816656 CAPLUS
DOCUMENT NUMBER: 135:357932
TITLE: Preparation of heterocyclic pharmaceutical compositions as muscarinic agonists
INVENTOR(S): Andersson, Carl-magnus A.; Friberg, Bo Lennart M.; Skjaerbaek, Niels; Spalding, Tracy; Uldam, Allan K.
PATENT ASSIGNEE(S): Acadia Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 84 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001083472	A1	20011108	WO 2001-US13561	20010427
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2407594	AA	20011108	CA 2001-2407594	20010427
US 2002037886	A1	20020328	US 2001-844685	20010427
US 6627645	B2	20030930		
EP 1278741	A1	20030129	EP 2001-932682	20010427
EP 1278741	B1	20050302		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2001010420	A	20030701	BR 2001-10420	20010427
JP 2003531901	T2	20031028	JP 2001-580900	20010427
NZ 521978	A	20041029	NZ 2001-521978	20010427
AT 290000	E	20050315	AT 2001-932682	20010427
ZA 2002008504	A	20040122	ZA 2002-8504	20021021
NO 2002005115	A	20021219	NO 2002-5115	20021024
PRIORITY APPLN. INFO.:			US 2000-200791P P	20000428
			WO 2001-US13561 W	20010427

OTHER SOURCE(S): MARPAT 135:357932
GI

L4 ANSWER 47 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



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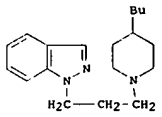


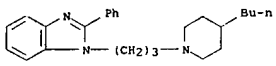
II

AB Heterocyclic pharmaceutical compns. I (Z1-Z4 = N or carbon substituted with H, NH2, OH, halo, alkyl, alkenyl, heteroalkyl, haloalkyl, CN, CF3, etc. and no more than two of Z1-Z4 = N; W1 = O, S, N; W2 and W3 = N or CR6 or CG where R6 = H, alkyl, CHO, cycloalkyl, (un)substituted aryl; Y = O, S, CHOH, NHC(O), C(O)NH, C(O), OC(O), (O)CO, CH=N or absent; p = 1-5; Z (un)substituted carbon or absent; n = 1-3; R10 = R11 = H, straight/branched (un)substituted alkyl, alkenyl, alkynyl, alkylidene, alkoxy, alkylthio, etc.) or pharmaceutically acceptable salt, ester or prodrug were prepared for treating disease conditions where modification of cholinergic, especially muscarinic M1, M4, or both M1 and M4, receptor activity has a beneficial effect. Thus 35AKU-21 (II) was prepared from 4-butylpiperidine and 1-(3-bromopropyl)-1H-indazole and tested for ocular hypotensive effect in glaucomatous monkeys and had a -29.2% IOP change in 6 h. Data is provided for the screening of test compds. I demonstrating the selective agonist activity using muscarinic receptor subtypes M1, M2, M3, M4 and M5.

IT **372197-15-4P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of heterocyclic pharmaceutical compns. with agonist activity at the M1/M4 muscarinic receptors)

RN 372197-15-4 CAPLUS

CN 1H-Benzimidazole, 1-[3-(4-butyl-1-piperidinyl)propyl]-2-phenyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 48 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 17 Oct 2001

ACCESSION NUMBER: 2001:757818 CAPLUS

DOCUMENT NUMBER: 135:303891

TITLE: Synthesis of diacylbenzimidazole derivatives as modulators of IgE

INVENTOR(S): Sircar, Jagadish C.; Richards, Mark L.; Campbell, Michael G.; Major, Michael W.

PATENT ASSIGNEE(S): Avanir Pharmaceuticals, USA

SOURCE: U.S., 157 pp., Cont.-in-part of U.S. 6,271,390. CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 8

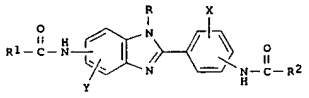
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6303645	B1	20011016	US 1999-422397	19991021
US 6271390	B1	20010807	US 1999-316870	19990521
US 2002010343	A1	20020124	US 2001-882340	20010614
US 6451829	B2	20020917		
US 2003004203	A1	20030102	US 2001-983054	20011016
US 2005075343	A1	20050407	US 2004-951515	20040928

PRIORITY APPLN. INFO.: US 1998-86494P P 19980522
US 1999-316870 A2 19990521
US 1999-422397 A2 19991021
US 2001-983054 A1 20011016

OTHER SOURCE(S): MARPAT 135:303891

GI



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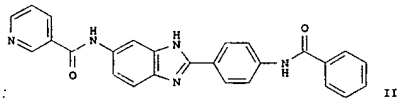


II

AB Title compds. I [X, Y = H, alkyl, alkoxy, aryl, aryl, hydroxy, halogen, amino, alkylamino, nitro, cyano, CF3, OCF3, CONH2, CONHR, NHCOR1; R = H, CH3, C2H5, C3H7, C4H9, CH2Ph, 4-F-C6H4-CH2; R1, R2 = H, aryl, aryl, cycloaryl, multi-ring cycloaryl, benzyl, alkyl, cycloalkyl, multi-ring

L4 ANSWER 48 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

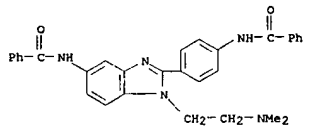
L4 ANSWER 48 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

cycloalkyl, fused-ring aliph., cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, bicycloheptyl, bicyclooctyl, bicyclononyl, etc., and at least one of R1 and R2 are arom. groups] were prepd. Over 300 examples were disclosed. E.g., 4-nitro-1,2-phenylenediamine was reacted with 4-aminobenzoic acid (POCl3, reflux, 18 h) to give 2-(4-aminophenyl)-4-nitrobenzimidazole. This intermediate was N-acylated (pyridine, acyl chloride), reduced (MeOH, H2 - 10% Pd/C) and N-acylated to give II. I were able to suppress IgE with IC50 = 100 pM to 1 nM and are useful in the treatment of allergy, asthma or any diseases where IgE is pathogenic.

IT **366012-44-4P 366012-45-5P 366012-50-2P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug; synthesis of diacylbenzimidazole derivs. as modulators of IgE)

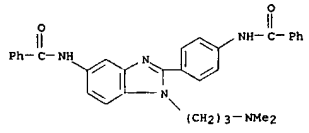
RN 366012-44-4 CAPLUS

CN Benzamide, N-[4-[5-(benzoylamino)-1-[2-(dimethylamino)ethyl]-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)



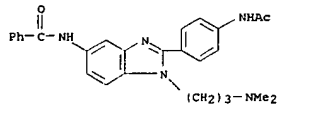
RN 366012-45-5 CAPLUS

CN Benzamide, N-[4-[5-(benzoylamino)-1-[3-(dimethylamino)propyl]-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)



RN 366012-50-2 CAPLUS

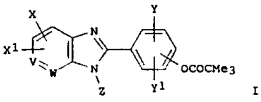
CN Benzamide, N-[2-[4-(acetylamino)phenyl]-1-[3-(dimethylamino)propyl]-1H-benzimidazol-5-yl]- (9CI) (CA INDEX NAME)



L4 ANSWER 49 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 14 Sep 2001
ACCESSION NUMBER: 2001:676266 CAPLUS
DOCUMENT NUMBER: 135:226997
TITLE: Preparation of benzimidazolyl- or imidazopyridinyl-substituted phenyl dimethylpropionates as elastase inhibitors
INVENTOR(S): Statkow, Pierre; Straumann, Danielle; Chatterjee, Shyam; Alvarez-builla, Gomez Julio; Sunkel, Letelier Carlos; Fau, De Casa-juana Munoz Miguel; Minguez, Ortega Jose M.; Paz, Matia Martin M.
PATENT ASSIGNEE(S): Cermol S.A., Switz.
SOURCE: Eur. Pat. Appl., 43 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1132381	A1	20010912	EP 2000-104916	20000308
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
WO 2001066526	A1	20010913	WO 2001-IB327	20010306
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: EP 2000-104916 A 20000308
OTHER SOURCE(S): MARPAT 135:226997
GI



I

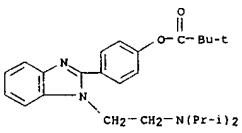
AB The title esters [I; X, X1 = H, alkyl, halo, NO2; Y, Y1 = H, alkyl, alkoxy, halo, dialkylamino; Z = H, dialkylaminoalkyl, piperidinylalkyl; V, W = CH, (un)substituted N] and their pharmacol. acceptable salts having an inhibitory activity of elastase (biol. data given), were prepared Thus, reacting 2-(4-hydroxyphenyl)benzimidazole with 2,2-dimethylpropionyl chloride in the presence of Et3N in CH2Cl2 afforded 85% I [X, X1, Y, Y1 = H; V, W = CH; Z = H; the ester function is attached to Ph ring at para-position).
IT **359771-98-5P 359771-99-6P 359772-01-3P 359772-02-4P 359772-03-5P 359772-04-6P**

L4 ANSWER 49 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

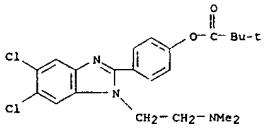
CM 2

CRN 144-62-7
CMF C2 H2 O4

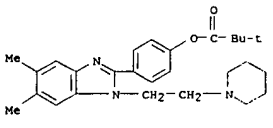
RN 359772-02-4 CAPLUS
CN Propanoic acid, 2,2-dimethyl-, 4-[1-[2-(bis(1-methylethyl)amino)ethyl]-1H-benzimidazol-2-yl]phenyl ester (9CI) (CA INDEX NAME)



RN 359772-03-5 CAPLUS
CN Propanoic acid, 2,2-dimethyl-, 4-[5,6-dichloro-1-[2-(dimethylamino)ethyl]-1H-benzimidazol-2-yl]phenyl ester (9CI) (CA INDEX NAME)

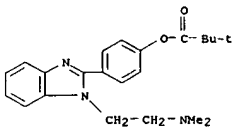


RN 359772-04-6 CAPLUS
CN Propanoic acid, 2,2-dimethyl-, 4-[5,6-dimethyl-1-[2-(1-piperidinyl)ethyl]-1H-benzimidazol-2-yl]phenyl ester (9CI) (CA INDEX NAME)

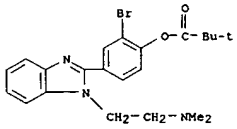


RN 359772-05-7 CAPLUS
CN Propanoic acid, 2,2-dimethyl-, 4-[5,6-dimethyl-1-[2-(1-piperidinyl)ethyl]-

L4 ANSWER 49 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
359772-05-7P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of benzimidazolyl- or imidazopyridinyl-substituted Ph dimethylpropionates as elastase inhibitors)
RN 359771-98-5 CAPLUS
CN Propanoic acid, 2,2-dimethyl-, 4-[1-[2-(dimethylamino)ethyl]-1H-benzimidazol-2-yl]phenyl ester (9CI) (CA INDEX NAME)



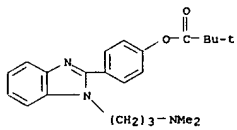
RN 359771-99-6 CAPLUS
CN Propanoic acid, 2,2-dimethyl-, 2-bromo-4-[1-[2-(dimethylamino)ethyl]-1H-benzimidazol-2-yl]phenyl ester (9CI) (CA INDEX NAME)



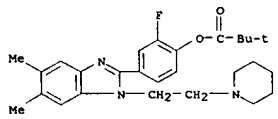
RN 359772-01-3 CAPLUS
CN Propanoic acid, 2,2-dimethyl-, 4-[1-[3-(dimethylamino)propyl]-1H-benzimidazol-2-yl]phenyl ester, ethanedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

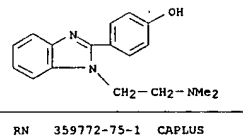
CRN 359772-00-2
CMF C23 H29 N3 O2



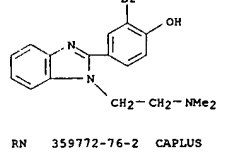
L4 ANSWER 49 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
1H-benzimidazol-2-yl]-2-fluorophenyl ester (9CI) (CA INDEX NAME)



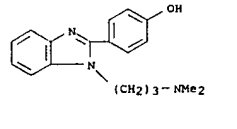
IT **359772-74-0 359772-75-1 359772-76-2 359772-77-3 359772-78-4 359772-79-5 359772-80-8**
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of benzimidazolyl- or imidazopyridinyl-substituted Ph dimethylpropionates as elastase inhibitors)
RN 359772-74-0 CAPLUS
CN Phenol, 4-[1-[2-(dimethylamino)ethyl]-1H-benzimidazol-2-yl]- (9CI) (CA INDEX NAME)



RN 359772-75-1 CAPLUS
CN Phenol, 2-bromo-4-[1-[2-(dimethylamino)ethyl]-1H-benzimidazol-2-yl]- (9CI) (CA INDEX NAME)

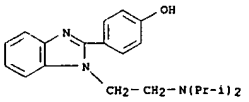


RN 359772-76-2 CAPLUS
CN Phenol, 4-[1-[3-(dimethylamino)propyl]-1H-benzimidazol-2-yl]- (9CI) (CA INDEX NAME)

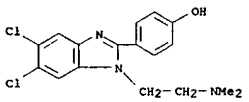


L4 ANSWER 49 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

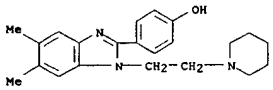
RN 359772-77-3 CAPLUS
CN Phenol, 4-[1-[2-[bis(1-methylethyl)amino]ethyl]-1H-benzimidazol-2-yl]- (9CI) (CA INDEX NAME)



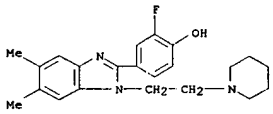
RN 359772-78-4 CAPLUS
CN Phenol, 4-[5,6-dichloro-1-[2-(dimethylamino)ethyl]-1H-benzimidazol-2-yl]- (9CI) (CA INDEX NAME)



RN 359772-79-5 CAPLUS
CN Phenol, 4-[5,6-dimethyl-1-[2-(1-piperidinyl)ethyl]-1H-benzimidazol-2-yl]- (9CI) (CA INDEX NAME)



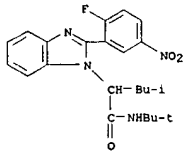
RN 359772-80-8 CAPLUS
CN Phenol, 4-[5,6-dimethyl-1-[2-(1-piperidinyl)ethyl]-1H-benzimidazol-2-yl]-2-fluoro- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS

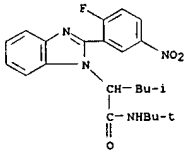
L4 ANSWER 49 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 50 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 11 Jul 2001
ACCESSION NUMBER: 2001:498884 CAPLUS
DOCUMENT NUMBER: 135:331409
TITLE: MCC/SNAr methodology. Part 1: Novel access to a range of heterocyclic cores
AUTHOR(S): Tempest, P.; Ma, V.; Kelly, M. G.; Jones, W.; Hulme, C.
CORPORATE SOURCE: Department of Combinatorial Chemistry, AMGEN Inc., Thousand Oaks, CA, 91320, USA
SOURCE: Tetrahedron Letters (2001), 42(30), 4963-4968
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 135:331409
AB The novel solution-phase syntheses of arrays of biol. relevant indazolinones, benzazepines and benzoxazepines, utilizing multi-component condensation (MCC)/SNAr methodol. is reported. Reaction of com. available 2-fluoro-5-nitrobenzoic acid with an aldehyde, isonitrile and a primary amine tethered to a Boc-protected internal amino or hydroxyl nucleophile, affords the Ugi product in good yield. Subsequent acid treatment followed by proton scavenging using polymer-supported reagents promotes cyclization of internal amino nucleophiles to a variety of ring sizes. Base treatment alone is sufficient to generate benzoxazepines. Interestingly, this method also introduces a highly efficient two-step route to benzimidazoles.
IT **370069-27-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(solution-phase preparation of heterocyclic compds. by multi-component condensation using polymer-supported reagents)
RN 370069-27-5 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(1,1-dimethylethyl)-2-(2-fluoro-5-nitrophenyl)-α-(2-methylpropyl)- (9CI) (CA INDEX NAME)



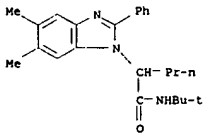
REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 51 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 11 Jul 2001
ACCESSION NUMBER: 2001:498883 CAPLUS
DOCUMENT NUMBER: 135:344419
TITLE: Two-step solution-phase synthesis of novel benzimidazoles utilizing a UDC (Ugi/de-Boc/cyclize) strategy
AUTHOR(S): Tempest, P.; Ma, V.; Thomas, S.; Hua, Z.; Kelly, M. G.; Hulme, C.
CORPORATE SOURCE: Department of Combinatorial Chemistry, AMGEN Inc., Thousand Oaks, CA, 91320, USA
SOURCE: Tetrahedron Letters (2001), 42(30), 4959-4962
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 135:344419
AB The novel solution-phase synthesis of an array of biol. relevant benzimidazoles in a simple two-step procedure is revealed. Transformations are carried out in excellent yield by condensation of mono-Boc protected ortho-phenylenediamine and supporting Ugi reagents. Subsequent acid treatment and evaporation affords benzimidazoles in good to excellent yield. The described protocol represents a highly attractive solution-phase procedure for the rapid generation of benzimidazole libraries.
IT **370069-27-5P 371158-13-3P 371158-19-9P**
371158-27-9P 371158-32-6P 371158-33-7P
371158-35-9P 371158-36-0P 371158-41-7P
371158-43-9P 371158-44-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of benzimidazoles by Ugi multi-component condensation-cyclization strategy)
RN 370069-27-5 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(1,1-dimethylethyl)-2-(2-fluoro-5-nitrophenyl)-α-(2-methylpropyl)- (9CI) (CA INDEX NAME)

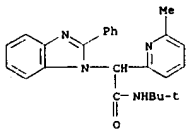


RN 371158-13-3 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(1,1-dimethylethyl)-5,6-dimethyl-2-phenyl-α-propyl- (9CI) (CA INDEX NAME)

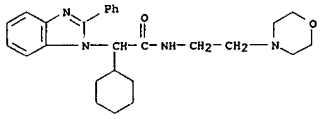
L4 ANSWER 51 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 371158-19-9 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(1,1-dimethylethyl)-α-(6-methyl-2-pyridinyl)-2-phenyl- (9CI) (CA INDEX NAME)

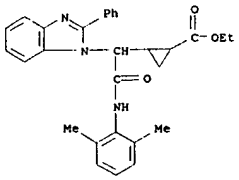


RN 371158-27-9 CAPLUS
CN 1H-Benzimidazole-1-acetamide, α-cyclohexyl-N-[2-(4-morpholinyl)ethyl]-2-phenyl- (9CI) (CA INDEX NAME)

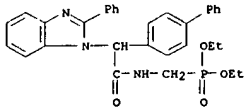


RN 371158-32-6 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[2-[(2,6-dimethylphenyl)amino]-2-oxo-1-(2-phenyl-1H-benzimidazol-1-yl)ethyl]-, ethyl ester (9CI) (CA INDEX NAME)

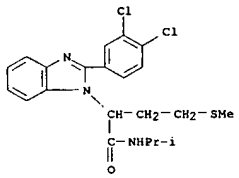
L4 ANSWER 51 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 371158-33-7 CAPLUS
CN Phosphonic acid, [[{[1,1'-biphenyl]-4-yl(2-phenyl-1H-benzimidazol-1-yl)acetyl]amino]methyl]-, diethyl ester (9CI) (CA INDEX NAME)

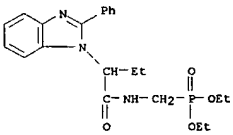


RN 371158-35-9 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(3,4-dichlorophenyl)-N-(1-methylethyl)-α-[2-(methylthio)ethyl]- (9CI) (CA INDEX NAME)

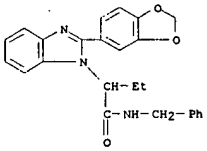


RN 371158-36-0 CAPLUS
CN Phosphonic acid, [[[1-oxo-2-(2-phenyl-1H-benzimidazol-1-yl)butyl]amino]methyl]-, diethyl ester (9CI) (CA INDEX NAME)

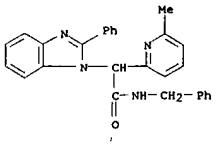
L4 ANSWER 51 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



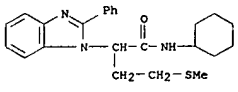
RN 371158-41-7 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(1,3-benzodioxol-5-yl)-α-ethyl-N-(phenylmethyl)- (9CI) (CA INDEX NAME)



RN 371158-43-9 CAPLUS
CN 1H-Benzimidazole-1-acetamide, α-(6-methyl-2-pyridinyl)-2-phenyl-N-(phenylmethyl)- (9CI) (CA INDEX NAME)

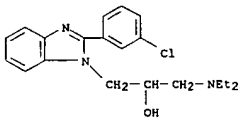


RN 371158-44-0 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-cyclohexyl-α-[2-(methylthio)ethyl]-2-phenyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

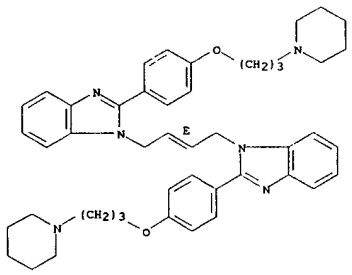
L4 ANSWER 52 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 11 Jul 2001
ACCESSION NUMBER: 2001:498766 CAPLUS
DOCUMENT NUMBER: 135:339147
TITLE: Dependence of the antioxidant effect of imidazole derivatives on the concentration and the scheme of administration
AUTHOR(S): Pavlova, R. N.; Kuznetsova, O. A.; Dadali, V. A.; Abyshev, A. Z.; Sokolova, E. A.
CORPORATE SOURCE: Dep. Biochemistry, Mechnikov State Medical Acad., St. Petersburg, 195067, Russia
SOURCE: Eksperimental'naya i Klinicheskaya Farmakologiya (2001), 64(3), 50-52
CODEN: EKFAE9; ISSN: 0869-2092
PUBLISHER: Izdatel'stvo Folium
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB The exptl. study of the antioxidant properties of imidazole derivs. showed evidence of a nonlinear dose-effect relationship as manifested by chemiluminescence in liposomes. In the in vivo expts., using a thiophenol intoxication model, the antioxidant effect observed for a "large dose - short time" scheme was more favorable than that for a "small dose - long time" administration schedule.
IT **324049-92-5**
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antioxidant effect of imidazole derivs. dependence on concentration and administration mode)
RN 324049-92-5 CAPLUS
CN 1H-Benzimidazole-1-ethanol, 2-(3-chlorophenyl)-α-[(diethylamino)methyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 53 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 25 Apr 2001
ACCESSION NUMBER: 2001:293416 CAPLUS
DOCUMENT NUMBER: 135:102451
TITLE: Antagonism of the discriminative stimulus effects of (+)-7-OH-DPAT by remoxipride but not PNU-99194A
AUTHOR(S): Christian, A. J.; Goodwin, A. K.; Baker, L. E.
CORPORATE SOURCE: Department of Psychology, Western Michigan University, Kalamazoo, MI, 49008, USA
SOURCE: Pharmacology, Biochemistry and Behavior (2001), 68(3), 371-377
CODEN: PBBHAU; ISSN: 0091-3057
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The dopamine (DA) agonist 7-hydroxy-N,N-di-n-propyl-2-amino-tetralin (7-OH-DPAT) has been used extensively as a tool to investigate the role of DA D3 receptors in the reinforcing and discriminative stimulus properties of psychostimulant drugs. The present study examined the relative importance of D3 vs. D2 receptor actions in the discriminative stimulus effects of (+)-7-OH-DPAT (0.03 mg/kg, s.c.) in 16 male Sprague-Dawley rats trained to discriminate this compound from saline in a two-lever, water-reinforced operant procedure under a FR 20 schedule. Stimulus generalization and antagonism tests were conducted with cocaine and with various selective D2 and D3 receptor ligands. In contrast to previous findings that (+)-7-OH-DPAT substitutes for cocaine, the present results demonstrated that cocaine does not produce stimulus generalization in animals trained to discriminate (+)-7-OH-DPAT. Although two D3-preferring agonists, PD-128907 and pramipexole, produced complete stimulus generalization to the training drug, two highly selective D3 antagonists (PNU-99194A, PD 152255) failed to block the discriminative stimulus effects of (+)-7-OH-DPAT. However, the D2 antagonist remoxipride (3.0 mg/kg) produced a rightward shift in the (+)-7-OH-DPAT dose-response curve. These findings suggest that D2 receptors are critically involved in mediating the cue properties of (+)-7-OH-DPAT. However, alternative interpretations that PNU-99194A is not entirely D3 receptor selective should also be considered.
IT **164917-23-1**, PD 152255
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(antagonism of discriminative stimulus effects of (+)-7-OH-DPAT by remoxipride but not PNU-99194A)
RN 164917-23-1 CAPLUS
CN 1H-Benzimidazole, 1,1'-(2E)-2-butene-1,4-diylbis[2-[4-[3-(1-piperidinyl)propoxy]phenyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

L4 ANSWER 53 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

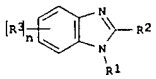


REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

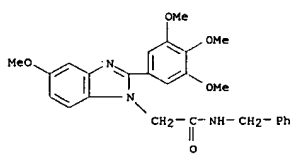
L4 ANSWER 54 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 05 Apr 2001
ACCESSION NUMBER: 2001:241749 CAPLUS
DOCUMENT NUMBER: 134:266310
TITLE: Preparation of 2-aryl-benzimidazoles for treating neoplasia
INVENTOR(S): Sperl, Gerhard; Ixkes, Ulrich; Pamukcu, Rifat; Piazza, Gary A.
PATENT ASSIGNEE(S): Cell Pathways, Inc., USA
SOURCE: U.S., 12 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6211177	B1	20010403	US 1998-200378	19981124
PRIORITY APPLN. INFO.:			US 1998-200378	19981124

OTHER SOURCE(S): MARPAT 134:266310
GI

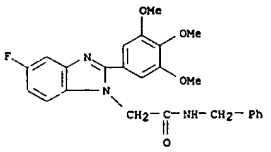


AB The title compds. [I; R1 = H, alkyl, (un)substituted CH2Ph, etc.; R2 = (un)substituted Ph, CH2Ph, pyridyl, etc.; R3 = halo, alkoxy, alkyl, etc.; n = 0-2], useful for inhibiting neoplasia, particularly cancerous and precancerous lesions (no data), were prepared Thus, reacting 1,2-phenylenediamine with 3,4,5-trimethoxybenzaldehyde in the presence of 2,3-dichloro-5,6-dicyano-1,4-benzoquinone in MeCN afforded 14% I [R1, R3 = H; R2 = 3,4,5-(MeO)3C6H2].
IT **332015-21-1P 332015-24-4P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 2-aryl-benzimidazoles for treating neoplasia)
RN 332015-21-1 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 5-methoxy-N-(phenylmethyl)-2-(3,4,5-trimethoxyphenyl)- (9CI) (CA INDEX NAME)



RN 332015-24-4 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 5-fluoro-N-(phenylmethyl)-2-(3,4,5-

L4 ANSWER 54 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
trimethoxyphenyl)- (9CI) (CA INDEX NAME)

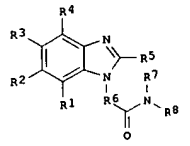


REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

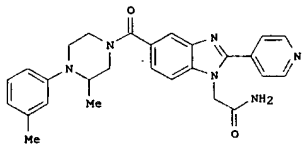
L4 ANSWER 55 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 30 Mar 2001
ACCESSION NUMBER: 2001:228903 CAPLUS
DOCUMENT NUMBER: 134:266308
TITLE: Benzimidazole derivatives and combinatorial libraries thereof, and their biological activity
INVENTOR(S): Lang, Hengyuan; Pei, Yazhong
PATENT ASSIGNEE(S): Trega Biosciences, Inc., USA
SOURCE: PCT Int. Appl., 135 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001021634	A1	20010329	WO 2000-US20942	20000801
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1214330	A1	20020619	EP 2000-950920	20000801
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
PRIORITY APPLN. INFO.:			US 1999-401004	A 19990921
			WO 2000-US20942	W 20000801
OTHER SOURCE(S):	MARPAT 134:266308			

GI



I



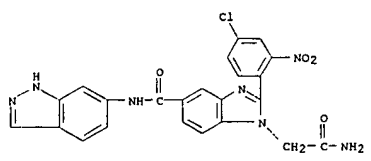
II

AB The invention relates to novel benzimidazole derivs. I [R1-R4 = H, halo, (protected) OH, cyano, (un)substituted alkyl(en/yn)yl, alkoxy, aryl, heterocyclyl, carbamoyl, etc.; R5 = H, (un)substituted alkyl, Ph,

L4 ANSWER 55 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
phenylalkyl, CO2H, amino, heterocyclyl, etc.; R6 = -D-W-E-, wherein W = bond, (un)substituted phenylene, cycloalkylene, arylene, heterocyclene, etc.; D = (un)substituted (cyclo/phenyl)alk(en/yn)ylene, phenylene, NH, etc.; E = bond, groups given for D; R7, R8 = H, resin, (un)substituted alkyl, Ph, heterocyclyl, cycloalk(en)yl, sulfonyl or carbonyl derivs.; with provisos requiring that one of R1-R4 = (un)substituted CONH2 when R6 = CH2]. The invention further relates to combinatorial libraries contg. two or more such compds., as well as methods of prepg. them. The compds. are potentially useful due to biol. activity. For instance, a library of 36,288 such benzimidazole derivs. was prepd. from 3 arrays of: 48 arom. or heteroarom. aldehydes; 27 amino acids or diamines; and 28 amines. The synthetic method involved: (1) coupling of an N-protected amino acid component to an amine resin, or a coupling of a diamine component using CDI; (2) deprotection; (3) N-arylation of the supported amine with 4-fluoro-3-nitrobenzoic acid; (4) amidation of the supported acid with an amine component; (5) SnCl2 redn. of the nitro group to an amine; (6) cyclocondensation of the supported diamine with an aldehyde component; and (7) cleavage from the support with HF. An exemplary compd. is II, derived from 4-fluoro-3-nitrobenzoic acid and: BOC-glycine, 2-methyl-1-(3-methylphenyl)piperazine, and 4-pyridinecarboxaldehyde. Three bioassays useful for I are described; a melanocortin receptor assay, an antimicrobial screen, and a penile erection assay in rats (vs. HP 228 as control).

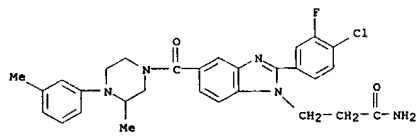
IT **318477-78-0P**, 2-(4-Chloro-2-nitrophenyl)-5-[[(1H-indazol-6-yl)amino]carbonyl]-1H-benzimidazole-1-acetamide **318524-16-2P** **318525-26-7P**, 2-(2-Bromophenyl)-5-[(cyclohexylamino)carbonyl]-1H-benzimidazole-1-butanamide **318525-48-3P**, 2-(2-Chloro-3,4-dimethoxyphenyl)-5-[(cyclohexylamino)carbonyl]-1H-benzimidazole-1-butanamide **331818-91-8P**, 2-(2-Nitro-4,5-dimethoxyphenyl)-5-[[(4-methylphenyl)amino]carbonyl]-1H-benzimidazole-1-butanamide **331818-95-2P** **331819-00-2P**, (R)-α-[2-(Methylthio)ethyl]-2-(2-fluorophenyl)-5-[(cyclooctylamino)carbonyl]-1H-benzimidazole-1-acetamide **331819-02-4P**, (R)-α-[2-(Methylthio)ethyl]-2-(2,3-dichlorophenyl)-5-[[4-(ethoxycarbonyl)piperidin-1-yl]carbonyl]-1H-benzimidazole-1-acetamide **331819-03-5P**, (R)-α-[2-(Methylthio)ethyl]-2-(2,3-dichlorophenyl)-5-[[(4-methylphenyl)amino]carbonyl]-1H-benzimidazole-1-acetamide **331819-09-1P**, (S)-α-Phenyl-2-(4-chloro-2-nitrophenyl)-5-[[4-(ethoxycarbonyl)piperidin-1-yl]carbonyl]-1H-benzimidazole-1-acetamide **331819-19-3P** **331819-21-7P** **331819-22-8P** **331819-25-1P** **331819-26-2P** **331819-31-9P** **331819-32-0P** **331819-34-2P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of benzimidazole derivs. and their combinatorial libraries)

RN 318477-78-0 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(4-chloro-2-nitrophenyl)-5-[(1H-indazol-6-ylamino)carbonyl]- (9CI) (CA INDEX NAME)

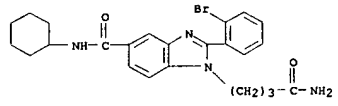


L4 ANSWER 55 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

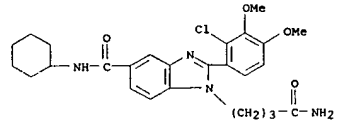
RN 318524-16-2 CAPLUS
CN 1H-Benzimidazole-1-propanamide, 2-(4-chloro-3-fluorophenyl)-5-[[3-methyl-4-(3-methylphenyl)-1-piperazinyl]carbonyl]- (9CI) (CA INDEX NAME)



RN 318525-26-7 CAPLUS
CN 1H-Benzimidazole-1-butanamide, 2-(2-bromophenyl)-5-[(cyclohexylamino)carbonyl]- (9CI) (CA INDEX NAME)

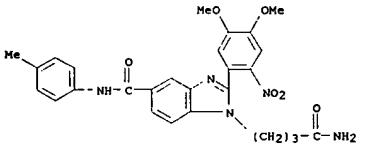


RN 318525-48-3 CAPLUS
CN 1H-Benzimidazole-1-butanamide, 2-(2-chloro-3,4-dimethoxyphenyl)-5-[(cyclohexylamino)carbonyl]- (9CI) (CA INDEX NAME)



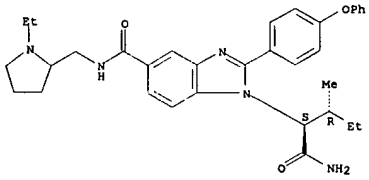
RN 331818-91-8 CAPLUS
CN 1H-Benzimidazole-1-butanamide, 2-(4,5-dimethoxy-2-nitrophenyl)-5-[[(4-methylphenyl)amino]carbonyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 55 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



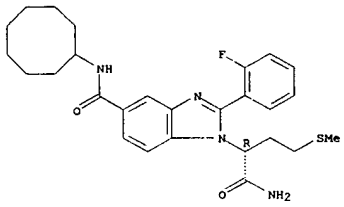
RN 331818-95-2 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 5-[[[(1-ethyl-2-pyrrolidinyl)methyl]amino]carbonyl]-α-[(1R)-1-methylpropyl]-2-(4-phenoxyphenyl)-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

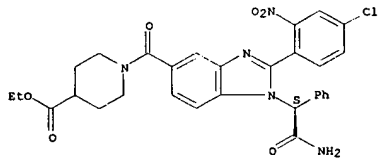


RN 331819-00-2 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 5-[(cyclooctylamino)carbonyl]-2-(2-fluorophenyl)-α-[2-(methylthio)ethyl]-, (αR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

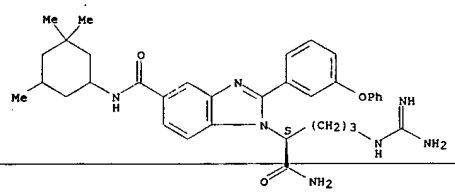


L4 ANSWER 55 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



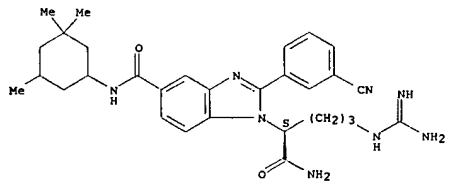
RN 331819-19-3 CAPLUS
CN 1H-Benzimidazole-1-acetamide, α-[3-[(aminoiminomethyl)amino]propyl]-2-(3-phenoxyphenyl)-5-[[(3,3,5-trimethylcyclohexyl)amino]carbonyl]-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 331819-21-7 CAPLUS
CN 1H-Benzimidazole-1-acetamide, α-[3-[(aminoiminomethyl)amino]propyl]-2-(3-cyanophenyl)-5-[[(3,3,5-trimethylcyclohexyl)amino]carbonyl]-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

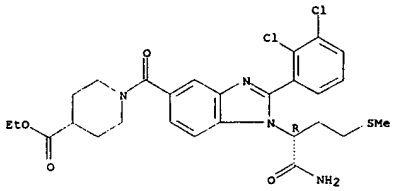


RN 331819-22-8 CAPLUS
CN 1H-Benzimidazole-1-acetamide, α-[3-[(aminoiminomethyl)amino]propyl]-5-[(cyclohexylamino)carbonyl]-2-(4-nitrophenyl)-, (αS)- (9CI) (CA INDEX NAME)

L4 ANSWER 55 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

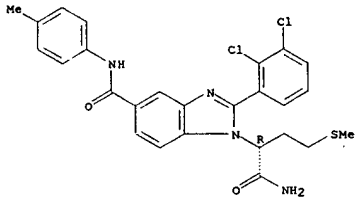
RN 331819-02-4 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[[1-[(1R)-1-(aminocarbonyl)-3-(methylthio)propyl]-2-(2,3-dichlorophenyl)-1H-benzimidazol-5-yl]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 331819-03-5 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(2,3-dichlorophenyl)-5-[[(4-methylphenyl)amino]carbonyl]-α-[2-(methylthio)ethyl]-, (αR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

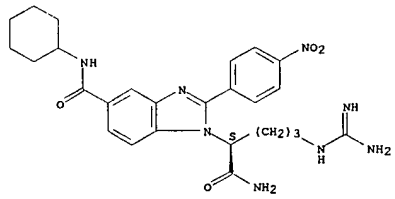


RN 331819-09-1 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[[1-[(1S)-2-amino-2-oxo-1-phenylethyl]-2-(4-chloro-2-nitrophenyl)-1H-benzimidazol-5-yl]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

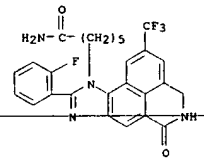
Absolute stereochemistry.

L4 ANSWER 55 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

Absolute stereochemistry.

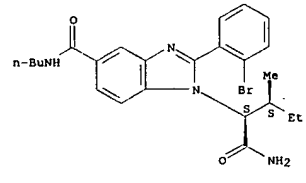


RN 331819-25-1 CAPLUS
CN Benz[de]imidazo[4,5-g]isoquinoline-10(4H)-hexanamide, 9-(2-fluorophenyl)-5,6-dihydro-6-oxo-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



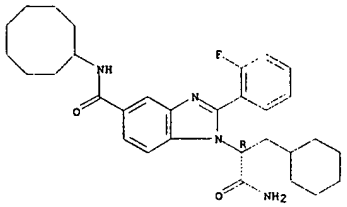
RN 331819-26-2 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(2-bromophenyl)-5-[(butylamino)carbonyl]-α-[(1S)-1-methylpropyl]-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



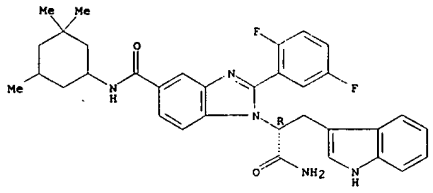
RN 331819-31-9 CAPLUS
CN 1H-Benzimidazole-1-acetamide, α-(cyclohexylmethyl)-5-[(cyclooctylamino)carbonyl]-2-(2-fluorophenyl)-, (αR)- (9CI) (CA INDEX NAME)

L4 ANSWER 55 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
Absolute stereochemistry.



RN 331819-32-0 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(2,5-difluorophenyl)-α-(1H-indol-3-ylmethyl)-5-[[[3,3,5-trimethylcyclohexyl]amino]carbonyl]-, (αR)-(9CI) (CA INDEX NAME)

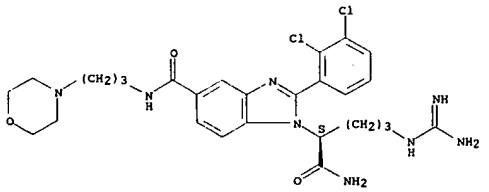
Absolute stereochemistry.



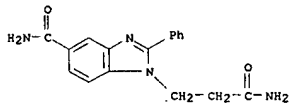
RN 331819-34-2 CAPLUS
CN 1H-Benzimidazole-1-acetamide, α-[3-[(aminoiminomethyl)amino]propyl]-2-(2,3-dichlorophenyl)-5-[[[3-(4-morpholinyl)propyl]amino]carbonyl]-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L4 ANSWER 55 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



IT **331819-39-7DP**, 5-(Aminocarbonyl)-2-phenyl-1H-benzimidazole-1-propanamide, derivs.
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of benzimidazole derivs. and their combinatorial libraries)
RN 331819-39-7 CAPLUS
CN 1H-Benzimidazole-1-propanamide, 5-(aminocarbonyl)-2-phenyl- (9CI) (CA INDEX NAME)



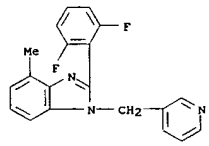
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 56 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 02 Mar 2001
ACCESSION NUMBER: 2001:152653 CAPLUS
DOCUMENT NUMBER: 134:193435
TITLE: Preparation of substituted 2-(2,6-difluorophenyl)benzimidazoles as non-nucleoside inhibitors of HIV-1 reverse transcriptase
INVENTOR(S): Michejda, Christopher J.; Morningstar, Marshall; Roth, Thomas
PATENT ASSIGNEE(S): United States Dept. of Health and Human Services, USA
SOURCE: PCT Int. Appl., 149 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001014343	A1	20010301	WO 2000-US23449	20000825
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2000070766	A5	20010319	AU 2000-70766	20000825
EP 1210336	A1	20020605	EP 2000-959441	20000825
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				

PRIORITY APPLN. INFO.: US 1999-380171 A 19990826
WO 2000-US23449 W 20000825
OTHER SOURCE(S): MARPAT 134:193435
AB 1-R''-2-(2,6-difluorophenyl)-4-X''-benzimidazole derivs. (I; e.g. 1-(2,6-difluorobenzyl)-2-(2,6-difluorophenyl)-4-methoxybenzimidazole) and pharmaceutical compns. containing them are HIV-1 reverse transcriptase inhibitors useful in treatment of HIV-1 infections. In I, X'' = H, Me, Et, cyano, methoxy, nitro, amino, acetamido, methylamino, dimethylamino, iso-Pr, isopropenyl, Br and Cl; and R'' = 2,6-difluorobenzyl, benzyl, ethylbenzyl, 2,6-dichlorobenzyl, 2,3,4,5,6-pentafluorobenzyl, pyridylmethyl, benzenesulfonyl, 2,6-difluorobenzoyl, and 3,3-dimethylallyl. Although the methods of preparation are not claimed, >100 example prepns. are included. Biol. activity data are presented for some of the claimed compds.; the methoxy and N-methylacetamido compds. were found to possess the best overall biol. profile of the compds. tested.
IT **199594-77-9P**, 1-(3-Pyridylmethyl)-2-(2,6-Difluorophenyl)-4-Methylbenzimidazole
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of substituted 2-(2,6-difluorophenyl)benzimidazoles as non-nucleoside inhibitors of HIV-1 reverse transcriptase)
RN 199594-77-9 CAPLUS
CN 1H-Benzimidazole, 2-(2,6-difluorophenyl)-4-methyl-1-(3-pyridinylmethyl)-(9CI) (CA INDEX NAME)

L4 ANSWER 56 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 57 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 26 Jan 2001
ACCESSION NUMBER: 2001:63828 CAPLUS
DOCUMENT NUMBER: 134:116238
TITLE: Melanocortin receptor-3 ligands to treat sexual dysfunction
INVENTOR(S): Dines, Kevin C.; Gahman, Timothy C.; Girten, Beverly E.; Hitchin, Douglas L.; Holme, Kevin R.; Lang, Hengyuan; Slivka, Sandra R.; Watson-Straughan, Karen J.; Tuttle, Ronald R.; Pei, Yazhong
PATENT ASSIGNEE(S): Trega Biosciences, Inc., USA
SOURCE: PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001005401	A1	20010125	WO 2000-US19408	20000713
W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6284735	B1	20010904	US 1999-356386	19990716
PRIORITY APPLN. INFO.:			US 1999-356386 A	19990716
			US 1999-364825 A	19990730
			US 1999-401004 A	19990921
			US 1998-83368P P	19980428
			US 1999-301391 A1	19990428
			US 1999-306686 A2	19990506

OTHER SOURCE(S): MARPAT 134:116238

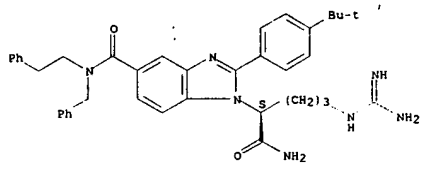
AB Methods for treating sexual dysfunction, such as erectile dysfunction or sexual arousal disorder, with a compound having the generic formula X1-X2-D-Phe-Arg-D-Trp-X3 [X1 = R1R2NCHR3CY1Y2, Ac, H, or absent, where R1 = R2, COPh, CO2Bu-t, CO2CH2Ph, CHCO-(polyethylene glycol) or A which is N,O-(un)substituted 3-amino-4,5,6-trihydroxytetrahydro-2-pyranyl; R2 = H, Ac, Et, PhCH2; R3 = alkyl, cycloalkyl; Y1, Y2 = H or together form carbonyl or thiocarbonyl; X2 = NR1CHR4CY1Y2-His, His, Ac, or H, where R4 = (CH2)mCONH2, (CH2)mCONHR1, or (CH2)CONHA (m = 1-3); X3 = NR1CHR6(CH2)nCY1Y2R5 or R5, where R5 = OH, OR3, NH2, SH, NHMe, NHCH2PH, or A; R6 = H or R3, n = 0-3]. A particularly useful compound is HP-228, which has the formula Ac-Nle-Gln-His-D-Phe-Arg-D-Trp-Gly-NH2. The invention also provides methods for selecting melanocortin receptor-3 ligands by determining whether a compound modulates the activity of MC-3 as an agonist or antagonist. These methods can be used to screen compound libraries, including benzimidazoles, for ligands to treat MC-3-associated conditions. Such conditions include sexual dysfunction, including erectile dysfunction and sexual arousal disorder (data given).

IT **321180-43-2 321180-45-4 321180-47-6 321180-49-8 321180-51-2 321180-53-4 321180-55-6 321180-57-8 321180-59-0**

L4 ANSWER 57 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(melanocortin receptor-3 ligands to treat sexual dysfunction)

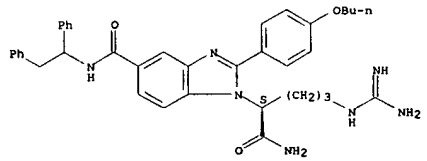
RN 321180-43-2 CAPLUS
CN 1H-Benzimidazole-1-acetamide, α-[3-[(aminoiminomethyl)amino]propyl]-2-[4-(1,1-dimethylethyl)phenyl]-5-[[(2-phenylethyl)(phenylmethyl)amino]carbonyl]-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 321180-45-4 CAPLUS
CN 1H-Benzimidazole-1-acetamide, α-[3-[(aminoiminomethyl)amino]propyl]-2-(4-butoxyphenyl)-5-[[(1,2-diphenylethyl)amino]carbonyl]-, (αS)- (9CI) (CA INDEX NAME)

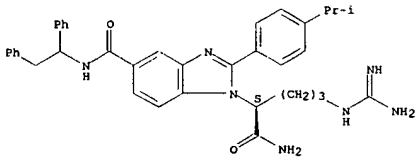
Absolute stereochemistry.



RN 321180-47-6 CAPLUS
CN 1H-Benzimidazole-1-acetamide, α-[3-[(aminoiminomethyl)amino]propyl]-5-[[(1,2-diphenylethyl)amino]carbonyl]-2-[4-(1-methylethyl)phenyl]-, (αS)- (9CI) (CA INDEX NAME)

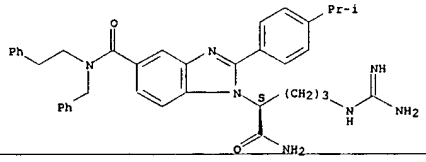
Absolute stereochemistry.

L4 ANSWER 57 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



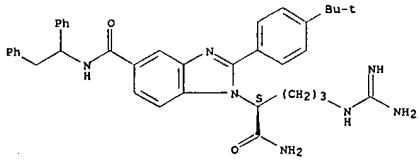
RN 321180-49-8 CAPLUS
CN 1H-Benzimidazole-1-acetamide, α-[3-[(aminoiminomethyl)amino]propyl]-2-[4-(1-methylethyl)phenyl]-5-[[(2-phenylethyl)(phenylmethyl)amino]carbonyl]-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 321180-51-2 CAPLUS
CN 1H-Benzimidazole-1-acetamide, α-[3-[(aminoiminomethyl)amino]propyl]-2-[4-(1,1-dimethylethyl)phenyl]-5-[[(1,2-diphenylethyl)amino]carbonyl]-, (αS)- (9CI) (CA INDEX NAME)

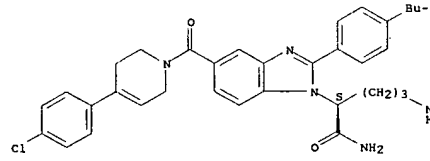
Absolute stereochemistry.



RN 321180-53-4 CAPLUS
CN 1H-Benzimidazole-1-acetamide, α-[3-[(aminoiminomethyl)amino]propyl]-5-[[4-(4-chlorophenyl)-3,6-dihydro-1(2H)-pyridinyl]carbonyl]-2-[4-(1,1-dimethylethyl)phenyl]-, (αS)- (9CI) (CA INDEX NAME)

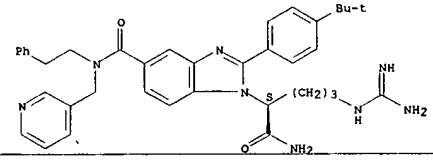
Absolute stereochemistry.

L4 ANSWER 57 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



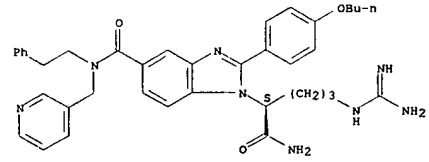
RN 321180-55-6 CAPLUS
CN 1H-Benzimidazole-1-acetamide, α-[3-[(aminoiminomethyl)amino]propyl]-2-[4-(1,1-dimethylethyl)phenyl]-5-[[(2-phenylethyl)(3-pyridinylmethyl)amino]carbonyl]-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 321180-57-8 CAPLUS
CN 1H-Benzimidazole-1-acetamide, α-[3-[(aminoiminomethyl)amino]propyl]-2-(4-butoxyphenyl)-5-[[(2-phenylethyl)(3-pyridinylmethyl)amino]carbonyl]-, (αS)- (9CI) (CA INDEX NAME)

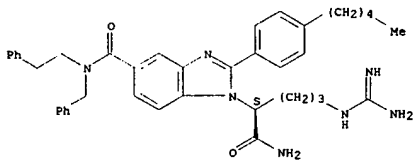
Absolute stereochemistry.



RN 321180-59-0 CAPLUS
CN 1H-Benzimidazole-1-acetamide, α-[3-[(aminoiminomethyl)amino]propyl]-2-(4-pentylphenyl)-5-[[(2-phenylethyl)(phenylmethyl)amino]carbonyl]-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L4 ANSWER 57 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



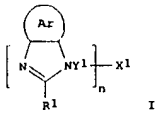
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 58 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 24 Nov 2000
ACCESSION NUMBER: 2000:823172 CAPLUS
DOCUMENT NUMBER: 133:367673
TITLE: Organic electroluminescent devices
INVENTOR(S): Ohama, Toru; Himeshima, Yoshio; Tominaga, Takeshi
PATENT ASSIGNEE(S): Toray Industries, Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000323278	A2	20001124	JP 1999-133909	19990514
PRIORITY APPLN. INFO.:			JP 1999-133909	19990514

OTHER SOURCE(S): MARPAT 133:367673
GI



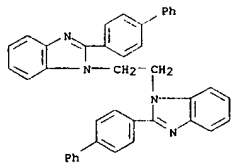
I

AB The devices comprise a phosphor or an electron transport layer containing an imidazole derivative I (R1 = H, alkyl, cycloalkyl, aralkyl, alkenyl, cycloalkenyl, alkynyl, OH, mercapto, alkoxy, alkylthio, arylether, arylthioether, aryl, heterocyclic, halo, haloalkane, haloalkenyl, haloalkene, cyano, aldehyde, carbonyl, ester, carbamoyl, amino, nitro, silyl, cyclothanyl; X = (substituted) aromatic, (substituted) heterocyclic, (substituted) (un)saturated aliphatic; (substituted), single bond; Y1 = single bond, (cyclo)alkyl chain, alkylene chain, aryl chain, heterocyclic chain, ether chain, thioether chain; Ar = (substituted) aromatic ring, (substituted) heterocyclic ring, (substituted) aromatic and heterocyclic ring).

IT **306944-29-6**
RL: DEV (Device component use); USES (Uses)
(Organic electroluminescent devices)

RN 306944-29-6 CAPLUS
CN 1H-Benzimidazole, 1,1'-(1,2-ethanediyl)bis[2-[1,1'-biphenyl]-4-yl- (9CI) (CA INDEX NAME)

L4 ANSWER 58 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

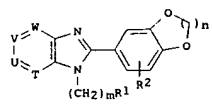


L4 ANSWER 59 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 11 Oct 2000
ACCESSION NUMBER: 2000:718249 CAPLUS
DOCUMENT NUMBER: 133:281781
TITLE: Preparation of benzodioxolylbenzimidazoles and related compounds as phosphodiesterase inhibitors.
INVENTOR(S): Huang, Horng-Chih; Chamberlain, Timothy S.; Settle, Steven Lynn; Joy, William Dean; Siegel, Ned R.; Bell, Leslie D.
PATENT ASSIGNEE(S): Monsanto Co., USA
SOURCE: U.S., 28 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6130333	A	20001010	US 1998-200863	19981127
PRIORITY APPLN. INFO.:			US 1998-200863	19981127

OTHER SOURCE(S): MARPAT 133:281781
GI



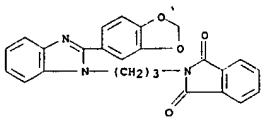
I

AB Title compds. e.g., [I; m = 0-6; n = 1-3; R1 = (substituted) alkyl, alkoxyalkyl, carboxyalkyl, alkylcarbonyl, arylcarbonyl, alkoxycarbonyl, cycloalkyl, heterocyclyl, heteroaryl, etc.; T, U, V, W = N, CR3; ≥1 of T, U, V, W = CR3; R3 = H, OH, halo, NO2, alkyl, alkylsulfonyl, alkoxy, alkenyl, alkynyl, amino; with specific exceptions], were prepared Thus, piperonal was refluxed 12 h with 1,2-phenylenediamine in PhNO2 to give 49% 2-(1,3-benzodioxol-5-yl)benzimidazole. The latter in DMF was treated with KOCMe3 and then with Et 4-bromobutanoate to give 74% Et 2-(1,3-benzodioxol-5-yl)-1H-benzimidazole-1-butanoate. Tested I inhibited cGMP PDE with IC50 = 0.003-0.024 μM.

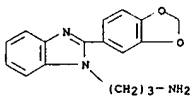
IT **300546-60-5P 300546-61-6P 300546-76-3P**
300546-77-4P 300553-89-3P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of benzodioxolylbenzimidazoles and related compds. as phosphodiesterase inhibitors)

RN 300546-60-5 CAPLUS
CN 1H-Isoindole-1,3(2H)-dione, 2-[3-[2-(1,3-benzodioxol-5-yl)-1H-benzimidazol-1-yl]propyl]- (9CI) (CA INDEX NAME)

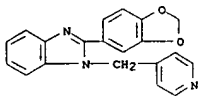
L4 ANSWER 59 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



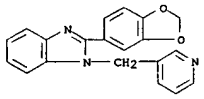
RN 300546-61-6 CAPLUS
CN 1H-Benzimidazole-1-propanamine, 2-(1,3-benzodioxol-5-yl)- (9CI) (CA INDEX NAME)



RN 300546-76-3 CAPLUS
CN 1H-Benzimidazole, 2-(1,3-benzodioxol-5-yl)-1-(4-pyridinylmethyl)- (9CI) (CA INDEX NAME)

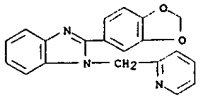


RN 300546-77-4 CAPLUS
CN 1H-Benzimidazole, 2-(1,3-benzodioxol-5-yl)-1-(3-pyridinylmethyl)- (9CI) (CA INDEX NAME)



RN 300553-89-3 CAPLUS
CN 1H-Benzimidazole, 2-(1,3-benzodioxol-5-yl)-1-(2-pyridinylmethyl)- (9CI) (CA INDEX NAME)

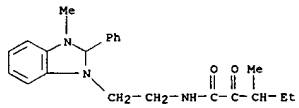
L4 ANSWER 59 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

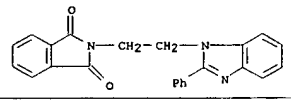
L4 ANSWER 60 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 27 Jul 2000
ACCESSION NUMBER: 2000:508655 CAPLUS
DOCUMENT NUMBER: 133:232366
TITLE: Studies on the novel anti-staphylococcal compound nematophin
AUTHOR(S): Kennedy, G.; Viziano, M.; Winders, J. A.; Cavallini, P.; Gevi, M.; Micheli, F.; Rodegher, P.; Seneci, P.; Zumerle, A.
CORPORATE SOURCE: Via Fleming 4, Medicines Research Centre, GlaxoWellcome SpA, Verona, 37100, Italy
SOURCE: Bioorganic & Medicinal Chemistry Letters (2000), 10(15), 1751-1754
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A number of analogs of the recently described compound nematophin were prepared and studied for antibacterial activity. The 2-Ph derivative was found to exhibit exceptional activity against methicillin resistant Staphylococcus aureus (MRSA) whereas the isosteric benzimidazole analog was much less active.
IT **294210-91-6P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(novel anti-staphylococcal compound nematophin)
RN 294210-91-6 CAPLUS
CN Pentanamide, 3-methyl-2-oxo-N-[2-(2-phenyl-1H-benzimidazol-1-yl)ethyl]- (9CI) (CA INDEX NAME)

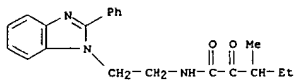
L4 ANSWER 60 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



● I⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
IT **294210-89-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(novel anti-staphylococcal compound nematophin)
RN 294210-89-2 CAPLUS
CN 1H-Isoindole-1,3(2H)-dione, 2-[2-(2-phenyl-1H-benzimidazol-1-yl)ethyl]- (9CI) (CA INDEX NAME)





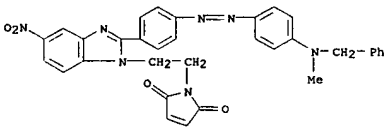
IT **294210-93-8P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(novel anti-staphylococcal compound nematophin)
RN 294210-93-8 CAPLUS
CN 1H-Benzimidazolium, 1-methyl-3-[2-[(3-methyl-1,2-dioxopentyl)amino]ethyl]-2-phenyl-, iodide (9CI) (CA INDEX NAME)

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 61 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 22 Jun 2000
ACCESSION NUMBER: 2000:414757 CAPLUS
DOCUMENT NUMBER: 133:253103
TITLE: Polymers for nonlinear optical applications. Second harmonic generation of corona-poled thin films
AUTHOR(S): Samyn, C.; Van Den Broeck, K.; Van Beylen, M.; Verbiest, T.; Persoons, A.
CORPORATE SOURCE: Laboratory of Macromolecular and Physical Organic Chemistry, University of Leuven, Louvain, B-3001, Belg.
SOURCE: MCLC S&T, Section B: Nonlinear Optics (1999), 22(1-4), 83-86
CODEN: MCLOEB; ISSN: 1058-7268
PUBLISHER: Gordon & Breach Science Publishers
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Second harmonic generation measurements of several series of (NLO-dye methacrylate)-Me methacrylate copolymers were investigated. Heterocyclic groups incorporated in the chromophore give rise to an enhanced effect. Some of the poled films do not show a significant decay in the second harmonic signal due to relaxation. Extremely high stability was obtained for azo chromophore functionalized poly(maleimide-4-Ph styrenes), showing ≤ 89% of remaining NLO-intensity, when heated at 125° for 1000 h.
IT **296262-39-0**
RL: PRP (Properties)
(second harmonic generation of corona-poled thin film polymethylmethacrylate-azo dye polymers for nonlinear optical applications.)
RN 296262-39-0 CAPLUS
CN 1H-Pyrrole-2,5-dione, 1-[2-[2-[4-[[4-[methyl(phenylmethyl)amino]phenyl]azo]phenyl]-5-nitro-1H-benzimidazol-1-yl]ethyl]-, polymer with 4-ethenyl-1,1'-biphenyl (9CI) (CA INDEX NAME)

CM 1

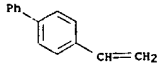
CRN 296262-38-9
CMF C33 H27 N7 O4



CM 2

CRN 2350-89-2
CMF C14 H12

L4 ANSWER 61 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

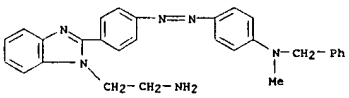


REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

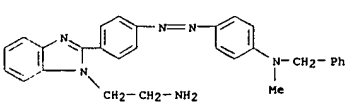
L4 ANSWER 62 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 06 Jun 2000
ACCESSION NUMBER: 2000:374461 CAPLUS
DOCUMENT NUMBER: 133:105452
TITLE: High glass transition chromophore functionalized poly(maleimide-styrene)s for second-order nonlinear optical applications
AUTHOR(S): Samyn, C.; Verbiest, T.; Kesters, E.; Van den Broeck, K.; Van Beylen, M.; Persoons, A.
CORPORATE SOURCE: Laboratory of Macromolecular and Physical Organic Chemistry, University of Leuven, Louvain, B-3001, Belg.
SOURCE: Polymer (2000), 41(16), 6049-6054
CODEN: POLMAG; ISSN: 0032-3861
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Nonlinear optical polymers with high glass transition temperature were prepared by
polymer analogous reaction of maleic anhydride copolymers, with aminoalkyl-functionalized azo- and stilbene chromophores. The glass transition temperature of the products was 178-228°. Poled films of the polymers were characterized by second-harmonic generation and showed a nonlinear optical response that is stable at elevated temps.
IT **284045-88-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(amine-chromophore intermediate; preparation and second-harmonic generation coefficient of high glass transition azo and stilbene chromophore functionalized poly(maleimide-styrene)s)
RN 284045-88-1 CAPLUS
CN 1H-Benzimidazole-1-ethanamine, 2-[4-[[4-[methyl(phenylmethyl)amino]phenyl]azo]phenyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 62 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT



IT **284045-88-1DP**, reaction products with maleic anhydride-substituted styrene copolymers
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and second-harmonic generation coefficient of high glass transition
azo and stilbene chromophore functionalized poly(maleimide-styrene)s)
RN 284045-88-1 CAPLUS
CN 1H-Benzimidazole-1-ethanamine, 2-[4-[[4-[methyl(phenylmethyl)amino]phenyl]azo]phenyl]- (9CI) (CA INDEX NAME)

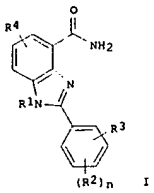


L4 ANSWER 63 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 15 May 2000
ACCESSION NUMBER: 2000:314677 CAPLUS
DOCUMENT NUMBER: 132:321860
TITLE: Preparation of 2-phenylbenzimidazoles as poly(ADP-ribose) polymerase inhibitors.
INVENTOR(S): Lubisch, Wilfried; Kock, Michael; Hoger, Thomas
PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany
SOURCE: PCT Int. Appl., 75 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000026192	A1	20000511	WO 1999-EP8169	19991028
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2349227	AA	20000511	CA 1999-2349227	19991028
BR 9915013	A	20010807	BR 1999-15013	19991028
EP 1127052	A1	20010829	EP 1999-955894	19991028
EP 1127052	B1	20041208		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
TR 200101239	T2	20011121	TR 2001-200101239	19991028
TR 200200972	T2	20020722	TR 2002-200200972	19991028
JP 2002528531	T2	20020903	JP 2000-579581	19991028
AU 765224	B2	20030911	AU 2000-12665	19991028
EP 1391457	A1	20040225	EP 2003-24899	19991028
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY				
AT 284392	E	20041215	AT 1999-955894	19991028
NO 2001002158	A	20010626	NO 2001-2158	20010502
ZA 2001003558	A	20020503	ZA 2001-3558	20010503
BG 105515	A	20011231	BG 2001-105515	20010516

PRIORITY APPLN. INFO.:
DE 1998-19850709 A 19981103
DE 1998-19852801 A 19981116
DE 1999-19908733 A 19990301
EP 1999-955894 A3 19991028
WO 1999-EP8169 W 19991028

OTHER SOURCE(S): MARPAT 132:321860
GI



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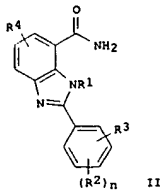


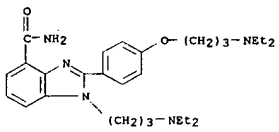
II

L4 ANSWER 63 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

AB Title compds. [I, II; R1 = H, (substituted) alkyl; R2 = H, Cl, Br, iodo, F, CF3, NO2, acylamino, amino, OH, alkoxy, phenylalkoxy, (substituted) Ph, etc.; n = 0-2; R3 = D(F1)pEq(F2)rG, EDu(F2)sGv, etc.; R4 = H, Cl, F, Br, iodo, alkyl, OH, NO2, CF3, cyano, amino, acylamino, alkoxy; D = S, O; E = Ph, imidazolyl, pyrrolyl, thienyl, pyridyl, isoxazolyl, etc.; F1, F2 = (substituted) C1-8 chain; p, q, r, s, u, v = 0, 1; G = amino, (substituted) pyrrolidinyl, piperidinyl, piperazinyl, azepinyl, diazepinyl, morpholino], were prepared as drugs (no data). Thus, Et 2,3-diaminobenzoate and HOAc in MeOH were treated with 4-(N,N-diethylaminoeth-1-yloxy)benzaldehyde (preparation given) in MeOH over 30 min.; CuOAc in H2O was added and the mixture was refluxed 20 min. to give Et 2-[4-[2-(N,N-diethylamino)eth-1-yloxy]phenyl]benzimidazole-4-carboxylate. This was refluxed 10 h with N2H4 in EtOH to give the hydrazide, which was heated with Raney Ni in DMF/H2O to give 2-[4-[2-(N,N-diethylamino)eth-1-yloxy]phenyl]benzimidazole-4-carboxamide.

IT **266993-18-4P 266993-20-8P 266993-22-0P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 2-phenylbenzimidazoles as PARP inhibitors)

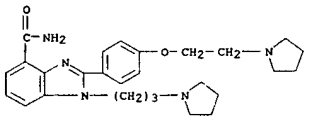
RN 266993-18-4 CAPLUS
CN 1H-Benzimidazole-4-carboxamide, 2-[4-[3-(diethylamino)propoxy]phenyl]-1-[3-(diethylamino)propyl]-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

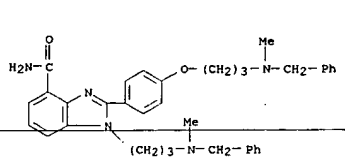
RN 266993-20-8 CAPLUS

L4 ANSWER 63 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CN 1H-Benzimidazole-4-carboxamide, 2-[4-[2-(1-pyrrolidinyl)ethoxy]phenyl]-1-[3-(1-pyrrolidinyl)propyl]-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 266993-22-0 CAPLUS
CN 1H-Benzimidazole-4-carboxamide, 2-[4-[3-[methyl(phenylmethyl)amino]propoxy]phenyl]-1-[3-[methyl(phenylmethyl)amino]propyl]-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

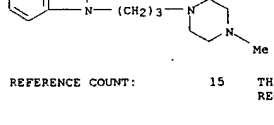
REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 64 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 13 Jan 2000
ACCESSION NUMBER: 2000:30832 CAPLUS
DOCUMENT NUMBER: 132:194321
TITLE: Traceless synthesis of benzimidazoles on solid support
AUTHOR(S): Mazurov, Anatoly
CORPORATE SOURCE: NanoSyn, Inc., Tucson, AZ, 85747, USA
SOURCE: Bioorganic & Medicinal Chemistry Letters (2000), 10(1), 67-70
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 132:194321

AB Traceless solid-phase syntheses of benzimidazoles and 5-(benzimidazol-2-yl)benzimidazoles on 2-(4-formyl-3-methoxyphenoxy)ethyl polystyrene are described. No auxiliary functional groups are left in the products after ultimate cleavage and cyclization.

IT **259734-89-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(traceless solid-phase synthesis of benzimidazoles and benzimidazolylbenzimidazoles)

RN 259734-89-9 CAPLUS
CN 1H-Benzimidazole, 2-(3-chlorophenyl)-1-[3-(4-methyl-1-piperazinyl)propyl]- (9CI) (CA INDEX NAME)



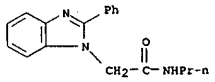
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 65 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 23 Aug 1999
ACCESSION NUMBER: 1999:523277 CAPLUS
DOCUMENT NUMBER: 131:286447
TITLE: Solid-phase synthesis of substituted benzimidazoles
AUTHOR(S): Tumelty, David; Schwarz, Matthias K.; Cao, Kathy; Needels, Michael C.
CORPORATE SOURCE: Affymax Research Institute, Palo Alto, CA, 94304, USA
SOURCE: Tetrahedron Letters (1999), 40(34), 6185-6188
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 131:286447

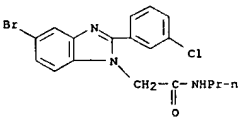
AB A solid-phase synthesis of benzimidazoles, substituted on the aromatic ring by a variety of groups or atoms, is described. An intermediate derived from the acylation of a resin-bound secondary amine with Fmoc-glycine was elaborated via nucleophilic displacement with substituted o-haloni troarenes. Careful optimization of the subsequent nitro-group reduction and cyclization with aldehydes, followed by acidolysis gave the title compds. in good yields and purities.

IT **246019-91-0P 246019-92-1P 246019-93-2P**
246019-97-6P 246019-98-7P 246019-99-8P
246020-01-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(solid-phase synthesis of substituted benzimidazoles)

RN 246019-91-0 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-phenyl-N-propyl- (9CI) (CA INDEX NAME)

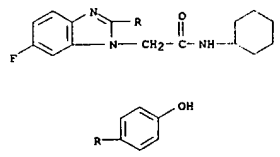


RN 246019-92-1 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 5-bromo-2-(3-chlorophenyl)-N-propyl- (9CI) (CA INDEX NAME)

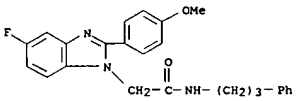


RN 246019-93-2 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-cyclohexyl-6-fluoro-2-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

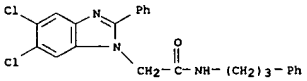
L4 ANSWER 65 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



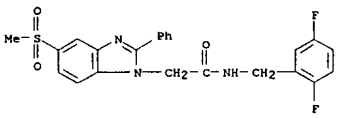
RN 246019-97-6 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 5-fluoro-2-(4-methoxyphenyl)-N-(3-phenylpropyl)- (9CI) (CA INDEX NAME)



RN 246019-98-7 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 5,6-dichloro-2-phenyl-N-(3-phenylpropyl)- (9CI) (CA INDEX NAME)

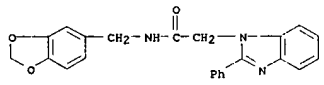


RN 246019-99-8 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-[(2,5-difluorophenyl)methyl]-5-(methylsulfonyl)-2-phenyl- (9CI) (CA INDEX NAME)



RN 246020-01-9 CAPLUS
CN 1H-Benzimidazole-1-acetamide, N-(1,3-benzodioxol-5-ylmethyl)-2-phenyl-

L4 ANSWER 65 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
(9CI) (CA INDEX NAME)

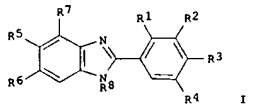


REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 66 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 22 Mar 1999
ACCESSION NUMBER: 1999:184240 CAPLUS
DOCUMENT NUMBER: 130:209707
TITLE: Preparation of 2-substituted phenyl-benzimidazole antibacterial agents
INVENTOR(S): Ohemeng, Kwasi Adomako; Nguyen, Van Nhatton
PATENT ASSIGNEE(S): Ortho-McNeil Pharmaceutical, Inc., USA
SOURCE: PCT Int. Appl., 70 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9911627	A1	19990311	WO 1998-US18586	19980904
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 5942532	A	19990824	US 1997-924558	19970905
AU 9893054	A1	19990322	AU 1998-93054	19980904
PRIORITY APPLN. INFO.:			US 1997-924558 A	19970905
			WO 1998-US18586 W	19980904

OTHER SOURCE(S): MARPAT 130:209707
GI



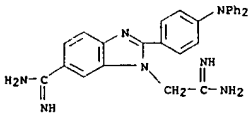
I

AB Benzimidazoles I [R1 = H, OH, alkoxy; R2, R3, R4 = H, OH, alkyl, CF3, halo, etc.; R5 = H, amino, amidino; R6 = nitro, C(NHR9):NR10; R7 = H, amino, nitro; R8 = H, Me], antibacterial compds., were prepared These compds. are effective in inhibiting the action of a bacterial histidine protein kinase and are useful as anti-infective agents against a variety of bacterial organisms, including organisms which are resistant to other known antibiotics. E.g., 3,4-diaminobenzimidate, prepared from 3,4-diaminobenzonitrile, was treated with NH3/EtOH, then with 4-Me3CC6H4CHO to give 2-[4-(1,1-dimethylethyl)phenyl]-2H-benzimidazole-5-carboximidamide.

IT **220955-59-9P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of phenylbenzimidazoles as antibacterial agents)

RN 220955-59-9 CAPLUS
CN 1H-Benzimidazole-1-ethanimidamide, 6-(aminoiminomethyl)-2-[4-(diphenylamino)phenyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 66 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



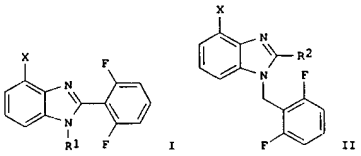
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 67 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 24 Sep 1998
ACCESSION NUMBER: 1998:604910 CAPLUS
DOCUMENT NUMBER: 129:216616
TITLE: Substituted benzimidazoles as non-nucleoside inhibitors of reverse transcriptase
INVENTOR(S): Michejda, Christopher J.; Morningstar, Marshall; Roth, Thomas
PATENT ASSIGNEE(S): United States Dept. of Health and Human Services, USA
SOURCE: PCT Int. Appl., 116 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9837072	A1	19980827	WO 1998-US3588	19980224
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9863371	A1	19980909	AU 1998-63371	19980224
AU 741772	B2	20011206		
EP 963371	A1	19991215	EP 1998-907608	19980224
EP 963371	B1	20030502		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2001513084	T2	20010828	JP 1998-536983	19980224
AT 238998	E	20030515	AT 1998-907608	19980224
CA 2281927	C	20040127	CA 1998-2281927	19980224
CA 2281927	AA	19980827		
US 6369235	B1	20020409	US 2000-380171	20000201
US 2003191160	A1	20031009	US 2002-119634	20020409
US 6894068	B2	20050517		

PRIORITY APPLN. INFO.: US 1997-38509P P 19970225
WO 1998-US3588 W 19980224
US 2000-380171 A1 20000201

OTHER SOURCE(S): MARPAT 129:216616
GI



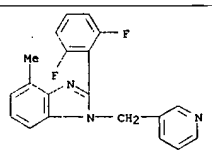
L4 ANSWER 67 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

AB The invention provides compns. and methods for the treatment of HIV infection. In particular, the invention provides non-nucleoside inhibitors of reverse transcriptase (RT), as well as methods to treat HIV infection using them. In preferred embodiments, a novel class of substituted benzimidazoles, effective in the inhibition of human immunodeficiency virus (HIV) RT, are provided. The claimed compds. include I and II [X = H, Me, Et, cyano, OMe, NO2, NH2, NHAc, NHMe, NMe2, CMe2OH, C(:CH2)Me, Br, Cl; R1 = 2,6-difluorobenzyl, CH2Ph, 2,6-dichlorobenzyl, pyridylmethyl, SO2Ph, CH2CH:CMe2, etc.; R2 = Ph, CHO, iso-Pr, H, Me, cyclopropyl, CH2OH, 2,6-difluorophenyl, methylphenyl, pyridyl, naphthyl, etc.]. For instance, 2-amino-3-nitrophenol underwent O-methylation (82%), N,N-diacylation with 2,6-difluorobenzoyl chloride (92%), hydrazinolysis of one acyl group (96%), reduction of the nitro group with Fe powder with concomitant cyclization to give a benzimidazole (86%), and N-alkylation with 2,6-difluoro-α-bromotoluene (91%), to give I [X = OMe, R1 = 2,6-difluorobenzyl]. This compound gave 85% inhibition of RT at 1 μM in vitro; it was also 100-fold more potent than TZB and TIBO and comparable to 8-chloro-TIBO and nevirapine in potency.

IT **199594-77-9P**, 1-(3-Pyridylmethyl)-2-(2,6-difluorophenyl)-4-methylbenzimidazole
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of substituted benzimidazoles as non-nucleoside inhibitors of reverse transcriptase)

RN 199594-77-9 CAPLUS

CN 1H-Benzimidazole, 2-(2,6-difluorophenyl)-4-methyl-1-(3-pyridinylmethyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

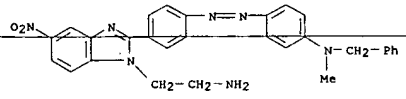
L4 ANSWER 68 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 03 Aug 1998
ACCESSION NUMBER: 1998:480082 CAPLUS
DOCUMENT NUMBER: 129:136518
TITLE: Synthesis and nonlinear optical properties of high glass transition poly(maleimide-4-phenylstyrene)s
AUTHOR(S): Verbiest, Thierry; Samyn, Celest; Van Beylen, Marcel; Persoons, Andre
CORPORATE SOURCE: Laboratory Chemical Biological Dynamics, University Leuven, Louvain, B-3001, Belg.
SOURCE: Macromolecular Rapid Communications (1998), 19(7), 349-352
CODEN: MRCOE3; ISSN: 1022-1336
PUBLISHER: Huethig & Wepf Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Nonlinear optical polymers with high Tg were prepared by polymer analogous reaction of maleic anhydride copolymers with aminoalkyl-functionalized azo chromophores. Poled films of the polymers show a good nonlinear optical response that is stable at ≤125°.

IT **210528-79-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(chromophore; preparation of aminoalkyl azo chromophores and functionalization of poly(maleimide-phenylstyrene)s)

RN 210528-79-3 CAPLUS

CN 1H-Benzimidazole-1-ethanamine, 2-[4-[[4-[methyl(phenylmethyl)amino]phenyl]azo]phenyl]-5-nitro- (9CI) (CA INDEX NAME)

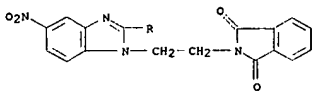


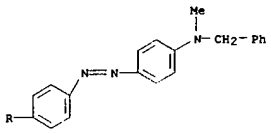
IT **210528-78-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of aminoalkyl azo chromophores and functionalization of poly(maleimide-phenylstyrene)s)

RN 210528-78-2 CAPLUS

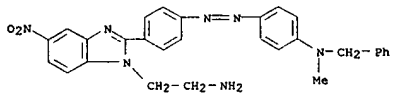
CN 1H-Isoindole-1,3(2H)-dione, 2-[2-[2-[4-[[4-[methyl(phenylmethyl)amino]phenyl]azo]phenyl]-5-nitro-1H-benzimidazol-1-yl]ethyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 68 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)





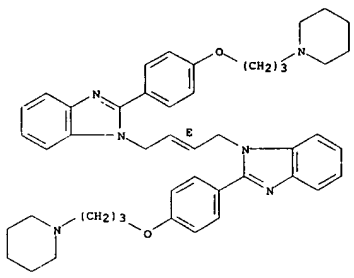
IT **210528-79-3DP**, reaction products with poly(maleimide-phenylstyrene)
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation of aminoalkyl azo chromophores and nonlinear optical properties of functionalized poly(maleimide-phenylstyrene))
RN 210528-79-3 CAPLUS
CN 1H-Benzimidazole-1-ethanamine, 2-[4-[[4-[methyl(phenylmethyl)amino]phenyl]azo]phenyl]-5-nitro- (9CI) (CA INDEX NAME)



L4 ANSWER 69 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

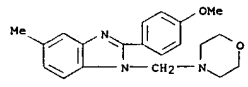
L4 ANSWER 69 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 07 May 1998
ACCESSION NUMBER: 1998:258521 CAPLUS
DOCUMENT NUMBER: 129:12650
TITLE: Comparison of D2 and D3 dopamine receptor affinity of dopaminergic compounds in rat brain
AUTHOR(S): Flietstra, Rebecca J.; Levant, Beth
CORPORATE SOURCE: Department of Pharmacology, Toxicology, and Therapeutics, University of Kansas Medical Center, Kansas City, KS, 66160-7417, USA
SOURCE: Life Sciences (1998), 62(20), 1825-1831
CODEN: LIFSAK; ISSN: 0024-3205
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB This study used quant. autoradiog. to simultaneously evaluate the relative affinities of dopaminergic compds. for dopamine D2 and D3 receptors in rat brain. PD 152255, PD 128907, and L-nafadotride exhibited significantly higher affinity for cerebellar dopamine D3 sites than [3H]quinpirole-labeled sites in caudate/putamen (6.3-, 6.0-, and 2.3-fold, resp.). In contrast, chlorpromazine, risperidone, and domperidone were more potent at striatal dopamine D2 receptors (3.8-, 31-, and 40-fold, resp.). Dopamine, quinelorane, (+)-UH 232, and RS-trans-7-OH-PIPAT exhibited relatively little D2/D3 selectivity.
IT **164917-23-1**, PD 152255
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(comparison of D2 and D3 dopamine receptor affinity of dopaminergic compds. in rat brain)
RN 164917-23-1 CAPLUS
CN 1H-Benzimidazole, 1,1'-(2E)-2-butene-1,4-diylbis[2-[4-[3-(1-piperidinyl)propoxy]phenyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

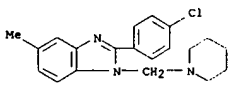
L4 ANSWER 70 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 28 Feb 1998
ACCESSION NUMBER: 1998:122843 CAPLUS
DOCUMENT NUMBER: 128:252832
TITLE: Synthesis and activities of 5-substituted-2-(p-substituted phenyl)-1-dialkylaminomethylbenzimidazole derivatives
AUTHOR(S): Uzunoglu, S.; Tosun, A. U.; Ozden, T.; Yesilada, E.; Berkem, R.
CORPORATE SOURCE: Department of Pharmaceutical Chemistry, Faculty of Pharmacy, Gazi University, Ankara, 06330, Turk.
SOURCE: Farmaco (1997), 52(10), 619-623
CODEN: FRMCE8; ISSN: 0014-827X
PUBLISHER: Societa Chimica Italiana
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Nine 1,2,5-trisubstituted benzimidazole derivs. were prepared and their structure were elucidated by IR, NMR spectral data and elemental analyses. Analgesic activity of the compds. prepared was studied in mice by modified KOSTER test. Antiinflammatory activity of these compds. was studied by a carrageenan-induced hind paw edema model in mice. Their antibacterial activities were examined against S. aureus, E. faecalis, E. coli, P. aeruginosa, and antifungal activity against three kinds of yeast-like fungi (C. albicans, C. parapsilosis, C. stellatoidea).
IT **194604-66-5P 205245-25-6P 205245-26-7P**
205245-27-8P 205245-28-9P 205245-29-0P
205245-30-3P 205245-31-4P 205245-32-5P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and pharmacol. and antimicrobial activity of)
RN 194604-66-5 CAPLUS
CN 1H-Benzimidazole, 2-(4-methoxyphenyl)-5-methyl-1-(4-morpholinylmethyl)-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

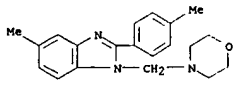
RN 205245-25-6 CAPLUS
CN 1H-Benzimidazole, 2-(4-chlorophenyl)-5-methyl-1-(1-piperidinylmethyl)-, monohydrochloride (9CI) (CA INDEX NAME)

L4 ANSWER 70 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



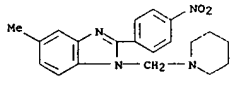
● HCl

RN 205245-26-7 CAPLUS
CN 1H-Benzimidazole, 5-methyl-2-(4-methylphenyl)-1-(4-morpholinylmethyl)-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

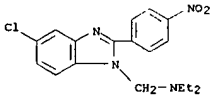
RN 205245-27-8 CAPLUS
CN 1H-Benzimidazole, 5-methyl-2-(4-nitrophenyl)-1-(1-piperidinylmethyl)-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

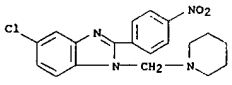
RN 205245-28-9 CAPLUS
CN 1H-Benzimidazole, 5-chloro-2-(4-chlorophenyl)-1-(4-morpholinylmethyl)-, monohydrochloride (9CI) (CA INDEX NAME)

L4 ANSWER 70 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



● HCl

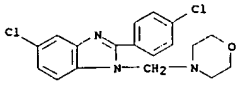
RN 205245-32-5 CAPLUS
CN 1H-Benzimidazole, 5-chloro-2-(4-nitrophenyl)-1-(1-piperidinylmethyl)-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

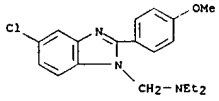
REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 70 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



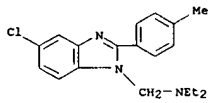
● HCl

RN 205245-29-0 CAPLUS
CN 1H-Benzimidazole-1-methanamine, 5-chloro-N,N-diethyl-2-(4-methoxyphenyl)-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 205245-30-3 CAPLUS
CN 1H-Benzimidazole-1-methanamine, 5-chloro-N,N-diethyl-2-(4-methylphenyl)-, monohydrochloride (9CI) (CA INDEX NAME)



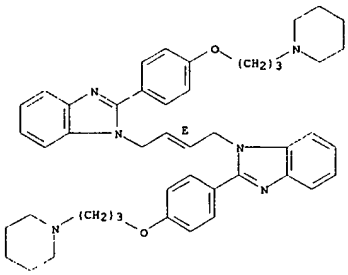
● HCl

RN 205245-31-4 CAPLUS
CN 1H-Benzimidazole-1-methanamine, 5-chloro-N,N-diethyl-2-(4-nitrophenyl)-, monohydrochloride (9CI) (CA INDEX NAME)

L4 ANSWER 71 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 04 Feb 1998
ACCESSION NUMBER: 1998:64815 CAPLUS
DOCUMENT NUMBER: 128:213195
TITLE: Pharmacological characterization of PD 152255, a novel dimeric benzimidazole dopamine D3 antagonist
AUTHOR(S): Corbin, Ann E.; Pugsley, Thomas A.; Akunne, Hyacinth C.; Whetzel, Steven Z.; Zoski, Kim T.; Georgic, Lynn M.; Nelson, Carrie B.; Wright, Jon L.; Wise, Lawrence D.; Heffner, Thomas G.
CORPORATE SOURCE: Psychiatric Disorders Therapeutics, Division of Warner-Lambert Company, Ann Arbor, MI, 48105, USA
SOURCE: Pharmacology, Biochemistry and Behavior (1998), 59(2), 487-493
CODEN: PBBHAU; ISSN: 0091-3057
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB PD 152255 (E-1,1'-(2-butene-1,4-diyl)bis[2-[4-[3-(1-piperidinyl)propoxy]-phenyl]-1H-benzimidazole]) exhibited high affinity (Ki = 12.7 nM) for human dopamine (DA) D3 receptors expressed in CHO K1 cells but not for DA D2L receptors (Ki = 565 nM), DA D4.2 or DA D1 receptors (Ki > 3 μM) and a number of other neurotransmitter receptors. Affinity for human muscarinic receptors was seen in vitro but no functional muscarinic agonist and/or antagonist action was observed in vivo. Antagonist activity at DA D3 receptors was demonstrated by blockade of quinpirole-stimulated [3H]-thymidine uptake in D3 transfected cells, an effect that was 28-fold more potent than in D2-transfected cells. Unlike classical DA D2 antagonists, PD 152255 did not increase rat brain DA synthesis and it increased locomotion in habituated rats. However, like antipsychotics, PD 152255 reduced locomotor activity in mice and reduced spontaneous and amphetamine-stimulated locomotion in nonhabituated rats. These results demonstrate that PD 152255 is a DA D3 antagonist that may have antipsychotic activity.
IT 164917-23-1
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(pharmacol. characterization of PD 152255, a novel dimeric benzimidazole dopamine D3 antagonist)
RN 164917-23-1 CAPLUS
CN 1H-Benzimidazole, 1,1'-(2E)-2-butene-1,4-diylbis[2-[4-[3-(1-piperidinyl)propoxy]phenyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

L4 ANSWER 71 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 72 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

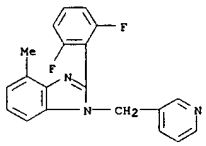
REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 72 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 20 Jan 1998
ACCESSION NUMBER: 1998:31649 CAPLUS
DOCUMENT NUMBER: 128:30038
TITLE: Synthesis and Biological Activity of Novel Nonnucleoside Inhibitors of HIV-1 Reverse Transcriptase. 2-Aryl-Substituted Benzimidazoles. 1
AUTHOR(S): Roth, Thomas; Morningstar, Marshall L.; Boyer, Paul L.; Hughes, Stephen H.; Buckheit, Robert W., Jr.; Michejda, Christopher J.
CORPORATE SOURCE: Molecular Aspects of Drug Design Section ABL-Basic Research and Development Program, National Cancer Institute-Frederick Cancer Research and Development Center, Frederick, MD, 21702, USA
SOURCE: Journal of Medicinal Chemistry (1997), 40(26), 4199-4207
CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The development of new nonnucleoside inhibitors of human immunodeficiency virus type-1 (HIV-1) reverse transcriptase (RT) active against the drug-induced mutations in RT continues to be a very important goal of AIDS research. We used the known inhibitor of HIV-1 RT, 1-(2,6-difluorophenyl)-1H,3H-thiazolo[3,4-a]benzimidazole (TZB), as the lead structure for drug design with the objective of making more potent inhibitors against both wild-type and variant RTs. A series of structurally related 1,2-substituted benzimidazoles was synthesized and evaluated for their ability to inhibit in vitro polymerization by HIV-1 RT. A structure-activity study was carried out for the series of compds. to determine the optimum groups for substitution of the benzimidazole ring at the N1 and C2 positions. The best inhibitor, 1-(2,6-difluorobenzyl)-2-(2,6-difluorophenyl)-4-methylbenzimidazole, has an IC50 = 200 nM against HIV-1 RT in an in vitro enzyme assay. Cyto-protection assays utilizing HIV-infected MT-4 cells revealed that 35 had strong antiviral activity (EC50 = 440 nM) against wild-type virus while retaining broad activity against many clin. observed HIV-1 strains resistant to nonnucleoside inhibitors.

IT **199594-77-9P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and biol. activity of novel aryl-substituted benzimidazole nonnucleoside inhibitors of HIV reverse transcriptase)

RN 199594-77-9 CAPLUS
CN 1H-Benzimidazole, 2-(2,6-difluorophenyl)-4-methyl-1-(3-pyridinylmethyl)-(9CI) (CA INDEX NAME)

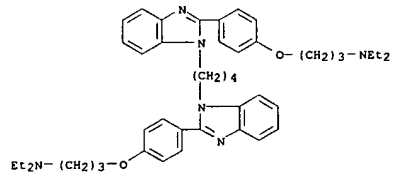


L4 ANSWER 73 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 24 Nov 1997
ACCESSION NUMBER: 1997:736648 CAPLUS
DOCUMENT NUMBER: 128:70650
TITLE: Effects of the dopamine D3 antagonist PD 58491 and its interaction with the dopamine D3 agonist PD 128907 on brain dopamine synthesis in rat
AUTHOR(S): Whetzel, S. Z.; Shih, Y. H.; Georgic, L. M.; Akunne, H. C.; Pugsley, T. A.
CORPORATE SOURCE: Psychiatric Disorders, Therapeutics, Parke-Davis Pharmaceutical Research Division, Warner-Lambert Co., Ann Arbor, MI, USA
SOURCE: Journal of Neurochemistry (1997), 69(6), 2363-2368
CODEN: JONRA9; ISSN: 0022-3042
PUBLISHER: Lippincott-Raven Publishers
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The dopamine (DA) D3 receptor antagonist PD 58491 [3-[4-[1-[4-[2-[4-(3-diethylaminopropoxy)phenyl]-benzoimidazol-1-yl-butyl]-1H-benzoimidazol-2-yl]-phenoxy]propyl]diethylamine] bound with high affinity and selectivity to recombinant human DA D3 vs. D2L and D4.2 receptors transfected into Chinese hamster ovary cells: Ki values of 19.5 nM vs. 2,362 and >3,000 nM, resp. In contrast, the putative DA D3 receptor antagonist (+)-AJ76 displayed low affinity and selectivity for D3 vs. D2L and D4.2 receptors (91 nM vs. 253 and 193 nM, resp.). In vitro, PD 58491 (1 nM-1 μM) exhibited D3 receptor antagonist activity, reversing the quinpirole (10 nM)-induced stimulation of [3H]thymidine uptake in D3 CHOpro-5 cells, but did not have any significant intrinsic activity by itself in this assay. PD 58491 did not decrease the γ-butyrolactone-induced increase in DA synthesis (L-3,4-dihydroxyphenylalanine accumulation) in rat striatum, indicating that the compound possessed no in vivo DA D2/D3 receptor agonist action at DA autoreceptors. PD 58491 (3-30 mg/kg, i.p.) generally did not alter DA or serotonin synthesis in either the striatum or mesolimbic region of rat brain. The D3-preferring agonist PD 128907 decreased DA synthesis in striatum and mesolimbic regions, and this effect was attenuated by pretreatment with PD 58491. These findings support the hypothesis that DA D3 autoreceptors may in part modulate the synthesis and release of DA in striatum and mesolimbic regions.

IT **164917-29-7**, PD 58491
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(effects of dopamine D3 antagonist PD 58491 and its interaction with dopamine D3 agonist PD 128907 on brain dopamine synthesis)

RN 164917-29-7 CAPLUS
CN 1-Propanamine, 3,3'-[1,4-butanediylbis(1H-benzimidazole-1,2-diyl-4,1-phenyleneoxy)]bis[N,N-diethyl- (9CI) (CA INDEX NAME)



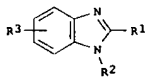
REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS

L4 ANSWER 73 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

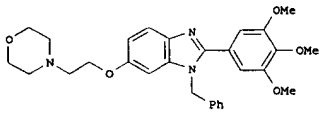
L4 ANSWER 74 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 29 Sep 1997
ACCESSION NUMBER: 1997:623154 CAPLUS
DOCUMENT NUMBER: 127:293221
TITLE: Methods of treating or preventing interstitial cystitis using substituted benzimidazoles
INVENTOR(S): Iyengar, Smriti; Muhlhauser, Mark A.; Thor, Karl B.
PATENT ASSIGNEE(S): Eli Lilly and Company, USA; Iyengar, Smriti; Muhlhauser, Mark A.; Thor, Karl B.
SOURCE: PCT Int. Appl., 121 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9733873	A1	19970918	WO 1997-US3895	19970307
W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2248013	AA	19970918	CA 1997-2248013	19970307
AU 9722078	A1	19971001	AU 1997-22078	19970307
JP 2000506529	T2	20000530	JP 1997-532805	19970307
US 6025379	A	20000215	US 1998-125956	19980825
PRIORITY APPLN. INFO.:			US 1996-13129P P	19960311
			WO 1997-US3895 W	19970307

OTHER SOURCE(S): MARPAT 127:293221
GI



I

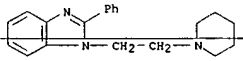


II

AB The invention provides methods for the treatment or prevention of interstitial cystitis or urethral syndrome using substituted benzimidazoles I [R1, R2 = H, alkyl, alkoxy, (un)substituted Ph, cycloalkyl, naphthyl, heterocyclyl, phenylalkyl, heterocyclylalkoxy, etc.; R3 = H, NO2, CF3, halo, alkanoyl, amino, alkyl, alkoxy, alkylthio, cycloalkyl, (un)substituted heterocyclyl, amino, aminoalkoxy, aminoalkyl, heterocyclylalkyl, heterocyclylalkoxy, etc.; only 1 or R1 and R2 may be H] or their pharmaceutically acceptable salts or solvates. Approx. 170 synthetic examples of I are given, with the products serving as target compds. and/or intermediates. Use of specific preferred compds. contg. cyclic or acyclic amine sidechains is also claimed. For instance, etherification of 1-benzyl-2-(3,4,5-trimethoxyphenyl)-6-hydroxybenzimidazole-HCl (prepn. given) with 4-(2-chloroethyl)morpholine-HCl in acetone in the presence of K2CO3 gave preferred title compd. II. Methods for the bioassay and clin. evaluation of I are described (no data).

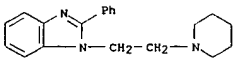
IT **14339-08-3P**, 1-[2-(Piperidin-1-yl)ethyl]-2-phenylbenzimidazole dihydrochloride **14339-09-4P**, 1-[2-(Piperidin-1-yl)ethyl]-2-phenylbenzimidazole **14339-10-7P**, 1-[2-(Morpholin-4-yl)ethyl]-2-phenylbenzimidazole dihydrochloride **175712-81-9P**, 1-[2-(Dimethylamino)ethyl]-2-phenylbenzimidazole dihydrochloride **175714-49-5P**, 1-[2-(Dimethylamino)ethyl]-2-phenylbenzimidazole
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(product and/or intermediate; preparation of benzimidazole derivs. for treatment of interstitial cystitis)

RN 14339-08-3 CAPLUS
CN 1H-Benzimidazole, 2-phenyl-1-[2-(1-piperidinyl)ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

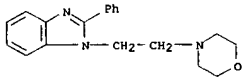


●2 HCl

RN 14339-09-4 CAPLUS
CN 1H-Benzimidazole, 2-phenyl-1-[2-(1-piperidinyl)ethyl]- (9CI) (CA INDEX NAME)

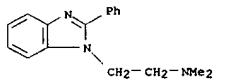


RN 14339-10-7 CAPLUS
CN 1H-Benzimidazole, 1-[2-(4-morpholinyl)ethyl]-2-phenyl-, dihydrochloride (9CI) (CA INDEX NAME)



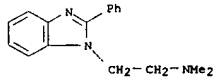
●2 HCl

RN 175712-81-9 CAPLUS
CN 1H-Benzimidazole-1-ethanamine, N,N-dimethyl-2-phenyl-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

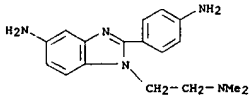
RN 175714-49-5 CAPLUS
CN 1H-Benzimidazole-1-ethanamine, N,N-dimethyl-2-phenyl- (9CI) (CA INDEX NAME)



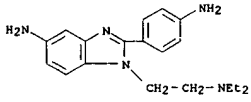
L4 ANSWER 75 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 18 Sep 1997
ACCESSION NUMBER: 1997:595035 CAPLUS
DOCUMENT NUMBER: 127:191188
TITLE: Derivatives of 5-amino-2-(p-aminophenyl)benzimidazole as monomers for synthesis of high-strength thermally stable anion exchangers
INVENTOR(S): Gitis, Semen S.; Atroshchenko, Yurij M.; Shakhkeldyan, Irina V.; Gradov, Viktor A.; Subbotin, Vladimir A.; Fedotov, Yurij A.; Kirsh, Yurij E.; Timashov, Sergej F.
PATENT ASSIGNEE(S): USSR
SOURCE: Russ. From: Izobreteniya 1997, (6), 161.
CODEN: RUXXE7
DOCUMENT TYPE: Patent
LANGUAGE: Russian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
RU 2074182	C1	19970227	RU 1992-8969	19921127
PRIORITY APPLN. INFO.:			RU 1992-8969	19921127

AB Title only translated.
IT **194298-85-6P 194298-86-7P 194298-87-8P 194298-88-9P**
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(monomers for synthesis of high-strength thermally stable anion exchangers)
RN 194298-85-6 CAPLUS
CN 1H-Benzimidazole-1-ethanamine, 5-amino-2-(4-aminophenyl)-N,N-dimethyl- (9CI) (CA INDEX NAME)

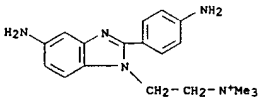


RN 194298-86-7 CAPLUS
CN 1H-Benzimidazole-1-ethanamine, 5-amino-2-(4-aminophenyl)-N,N-diethyl- (9CI) (CA INDEX NAME)



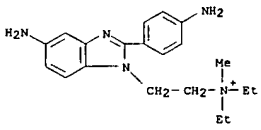
RN 194298-87-8 CAPLUS

L4 ANSWER 75 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CN 1H-Benzimidazole-1-ethanaminium, 5-amino-2-(4-aminophenyl)-N,N,N-trimethyl-, iodide (9CI) (CA INDEX NAME)



● I⁻

RN 194298-88-9 CAPLUS
CN 1H-Benzimidazole-1-ethanaminium, 5-amino-2-(4-aminophenyl)-N,N-diethyl-N-methyl-, iodide (9CI) (CA INDEX NAME)

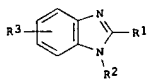


● I⁻

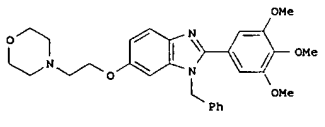
L4 ANSWER 76 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 17 Sep 1997
ACCESSION NUMBER: 1997:594631 CAPLUS
DOCUMENT NUMBER: 127:262677
TITLE: Methods of treating or preventing sleep apnea using di- and trisubstituted benzimidazoles
INVENTOR(S): Gitter, Bruce D.; Iyengar, Smriti
PATENT ASSIGNEE(S): Eli Lilly and Co., USA; Gitter, Bruce D.; Iyengar, Smriti
SOURCE: PCT Int. Appl., 117 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9731635	A1	19970904	WO 1997-US3113	19970226
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9721390	A1	19970916	AU 1997-21390	19970226
US 6030992	A	20000229	US 1998-142026	19980827
PRIORITY APPLN. INFO.:			US 1996-12665P P	19960301
			WO 1997-US3113 W	19970226

OTHER SOURCE(S): MARPAT 127:262677
GI



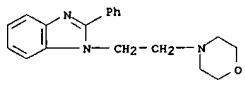
I



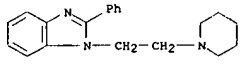
II

AB This invention provides methods for the treatment or prevention of sleep apnea (no data) using substituted benzimidazoles I [R1, R2 = H, alkyl, alkoxy, (un)substituted heterocyclyl, phenylalkoxy, phenylalkylidenyl, heterocyclylalkoxy, etc.; R3 = H, NO2, alkanoyl, alkyl, alkoxy, halo, (un)substituted amino, heterocyclyl, heterocyclylalkoxy, hydroxyalkyl, etc.; provided that both of R1 and R2 cannot be H] and their pharmaceutically acceptable salts or solvates. Examples include 174 syntheses of I, including both the preferred amine-containing target compds., and other compds. I serving primarily as intermediates. Eleven pharmaceutical formulations are also given. For instance, the intermediate compd. I.HCl [R1 = 3,4,5-trimethoxyphenyl; R2 = CH2Ph; R3 = 6-OH] (prepd. in 3 steps from 4-amino-3-nitrophenol) was etherified with 4-(2-chloroethyl)morpholine-HCl using K2CO3 in acetone to give a preferred title compd., II.

L4 ANSWER 76 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
IT **5322-96-3P 14339-08-3P 14339-09-4P 14339-10-7P 175712-81-9P 175714-49-5P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(drug and/or intermediate; preparation of benzimidazoles for treatment or prevention of sleep apnea)
RN 5322-96-3 CAPLUS
CN 1H-Benzimidazole, 1-[2-(4-morpholinyl)ethyl]-2-phenyl- (9CI) (CA INDEX NAME)

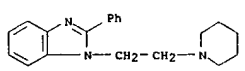


RN 14339-08-3 CAPLUS
CN 1H-Benzimidazole, 2-phenyl-1-[2-(1-piperidinyl)ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)



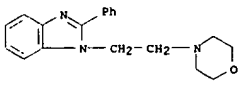
●2 HCl

RN 14339-09-4 CAPLUS
CN 1H-Benzimidazole, 2-phenyl-1-[2-(1-piperidinyl)ethyl]- (9CI) (CA INDEX NAME)



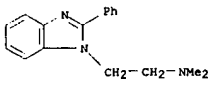
RN 14339-10-7 CAPLUS
CN 1H-Benzimidazole, 1-[2-(4-morpholinyl)ethyl]-2-phenyl-, dihydrochloride (9CI) (CA INDEX NAME)

L4 ANSWER 76 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



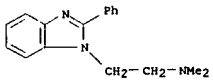
●2 HCl

RN 175712-81-9 CAPLUS
CN 1H-Benzimidazole-1-ethanamine, N,N-dimethyl-2-phenyl-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 175714-49-5 CAPLUS
CN 1H-Benzimidazole-1-ethanamine, N,N-dimethyl-2-phenyl- (9CI) (CA INDEX NAME)

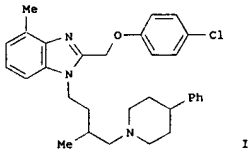


L4 ANSWER 77 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 01 Sep 1997
ACCESSION NUMBER: 1997:556107 CAPLUS
DOCUMENT NUMBER: 127:161824
TITLE: Benzimidazolyl neuropeptide Y receptor antagonists
INVENTOR(S): Arnold, Macklin B.; Britton, Thomas C.; Bruns, Robert F., Jr.; Cantrell, Buddy E.; Happ, Anne M.; Hipskind, Philip A.; Howbert, James J.; Lobb, Karen L.; Nixon, James A.; Ornstein, Paul L.; Smith, Edward C.; Zarrinmayeh, Hamideh; Zimmerman, Dennis M.
PATENT ASSIGNEE(S): Eli Lilly and Co., USA
SOURCE: PCT Int. Appl., 369 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9725041	A1	19970717	WO 1997-US511	19970109
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2242579	AA	19970717	CA 1997-2242579	19970109
AU 9722421	A1	19970801	AU 1997-22421	19970109
EP 871442	A1	19981021	EP 1997-905573	19970109
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
JP 2000501107	T2	20000202	JP 1997-525457	19970109
US 6255494	B1	20010703	US 1997-775538	19970109
ZA 9704587	A	19981126	ZA 1997-4587	19970526
US 2002007071	A1	20020117	US 2000-726276	20001130

PRIORITY APPLN. INFO.: GB 1996-344 A 19960109
US 1996-21636P P 19960712
US 1997-775538 A3 19970109
WO 1997-US511 W 19970109

OTHER SOURCE(S): MARPAT 127:161824
GI



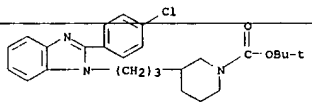
I

L4 ANSWER 77 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

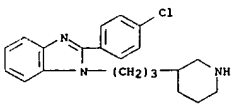
AB This invention provides a series of benzimidazoles, substituted in the 1-position by a variety of groups, substituted in the 2-position by certain carbocycle-containing groups, and optionally substituted in positions 4-7. The compds. are useful in treating or preventing conditions associated with an excess of neuropeptide Y. The invention also provides methods employing the compds., as well as pharmaceutical formulations comprising one or more of them as active ingredients. Many of the compds. are said to show significant activity as neuropeptide Y receptor antagonists, with Ki of 10 μM to 0.1 nM (no addnl. data). Over 360 synthetic examples are given, in which the invention compds. serve as both intermediates and/or final products. Addnl. prepns. of non-invention compds. are also provided. For instance, 2-[(4-chlorophenoxy)methyl]-4-methylbenzimidazole underwent N-alkylation by BrCH2CH2CHMeCO2Et using NaH in DMF (98%), and the product underwent a sequence of saponification (94%), amidation with 4-phenylpiperidine using DCC and HOBt (56%), and amide reduction using BH3.THF (72%), to give title compound I.

IT **193626-40-3P 193627-03-1P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(invention compound; preparation of benzimidazole derivs. as neuropeptide Y receptor antagonists)

RN 193626-40-3 CAPLUS
CN 1-Piperidinecarboxylic acid, 3-[3-[2-(4-chlorophenyl)-1H-benzimidazol-1-yl]propyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 193627-03-1 CAPLUS
CN 1H-Benzimidazole, 2-(4-chlorophenyl)-1-[3-(3-piperidinyl)propyl]- (9CI) (CA INDEX NAME)

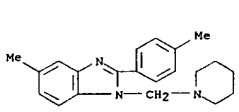


L4 ANSWER 78 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 07 Aug 1997
ACCESSION NUMBER: 1997:499703 CAPLUS
DOCUMENT NUMBER: 127:199623
TITLE: Studies on analgesic and anti-inflammatory activities of 1-dialkylaminomethyl-2-(p-substituted phenyl)-5-substituted benzimidazole derivatives
AUTHOR(S): Ersan, Seyhan; Nacak, Sultan; Noyanalplan, Ningur; Yesilada, Erdem
CORPORATE SOURCE: Fac. Pharmacy, Gazi University, Ankara, 06330, Turk.
SOURCE: Arzneimittel-Forschung (1997), 47(7), 834-836
CODEN: ARZNAD; ISSN: 0004-4172
PUBLISHER: Cantor
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The analgesic and anti-inflammatory activity of 1,2,5-trisubstituted benzimidazole derivs. have been examined Analgesic activities of these compds. were investigated by using the modified Koster test. Among the compds. synthesized especially compound 1-(diethylaminomethyl)-2-(p-chlorophenyl)-5-nitro benzimidazole hydrochloride (I) showed higher activity than acetylsalicylic acid (ASA) and indomethacin. Compds. 1-(diethylaminomethyl)-2-(p-methoxyphenyl)-5-nitro benzimidazole hydrochloride, 1-(diethylaminomethyl)-2-(p-tolyl)-5-nitro benzimidazole hydrochloride, and 1-(pipenridinomethyl)-2-(p-methoxyphenyl)-5-nitro benzimidazole hydrochloride proved as potent as the standard ASA. The above compds. were screened for their antiinflammatory activities using the carrageenan-induced hind paw edema test. Except I all compds. were almost inactive against this model of inflammation compared to indomethacin.

IT **190439-23-7P 190439-25-9P 190439-26-0P**
190439-27-1P 190439-28-2P 190439-31-7P
190439-32-8P 190439-34-0P 194604-66-5P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(analgesic and antiinflammatory activities of dialkylaminomethyl (substituted phenyl) benzimidazole derivs.)

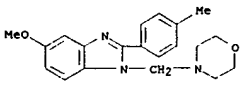
RN 190439-23-7 CAPLUS
CN 1H-Benzimidazole, 5-methyl-2-(4-methylphenyl)-1-(1-piperidinylmethyl)-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

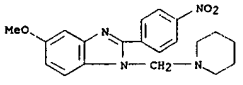
RN 190439-25-9 CAPLUS
CN 1H-Benzimidazole, 5-methoxy-2-(4-methylphenyl)-1-(4-morpholinylmethyl)-, monohydrochloride (9CI) (CA INDEX NAME)

L4 ANSWER 78 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



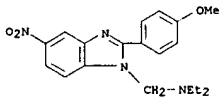
● HCl

RN 190439-26-0 CAPLUS
CN 1H-Benzimidazole, 5-methoxy-2-(4-nitrophenyl)-1-(1-piperidinylmethyl)-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

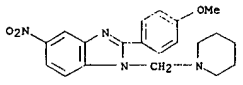
RN 190439-27-1 CAPLUS
CN 1H-Benzimidazole-1-methanamine, N,N-diethyl-2-(4-methoxyphenyl)-5-nitro-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

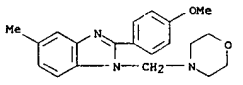
RN 190439-28-2 CAPLUS
CN 1H-Benzimidazole-1-methanamine, N,N-diethyl-2-(4-methylphenyl)-5-nitro-, monohydrochloride (9CI) (CA INDEX NAME)

L4 ANSWER 78 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



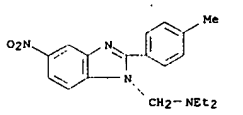
● HCl

RN 194604-66-5 CAPLUS
CN 1H-Benzimidazole, 2-(4-methoxyphenyl)-5-methyl-1-(4-morpholinylmethyl)-, monohydrochloride (9CI) (CA INDEX NAME)



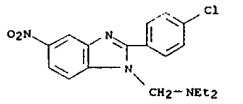
● HCl

L4 ANSWER 78 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



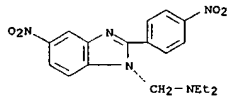
● HCl

RN 190439-31-7 CAPLUS
CN 1H-Benzimidazole-1-methanamine, 2-(4-chlorophenyl)-N,N-diethyl-5-nitro-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

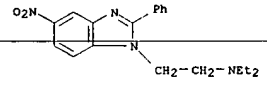
RN 190439-32-8 CAPLUS
CN 1H-Benzimidazole-1-methanamine, N,N-diethyl-5-nitro-2-(4-nitrophenyl)-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

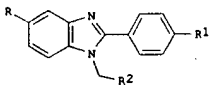
RN 190439-34-0 CAPLUS
CN 1H-Benzimidazole, 2-(4-methoxyphenyl)-5-nitro-1-(1-piperidinylmethyl)-, monohydrochloride (9CI) (CA INDEX NAME)

L4 ANSWER 79 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 04 Aug 1997
ACCESSION NUMBER: 1997:484079 CAPLUS
DOCUMENT NUMBER: 127:205518
TITLE: Rapid in-plate generation of benzimidazole libraries and amide formation using EEDQ
AUTHOR(S): Thomas, James B.; Fall, Michael J.; Cooper, Julie B.; Burgess, Jason P.; Carroll, F. Ivy
CORPORATE SOURCE: Chem. and Life Sciences, Research Triangle Inst., Research Trianlge Park, NC, 27709, USA
SOURCE: Tetrahedron Letters (1997), 38(29), 5099-5102
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 127:205518
AB A solution phase method for the preparation of etonitazene-related benzimidazoles and a general method for the preparation of amide derivs. in 96-well format have been developed for the generation of libraries of compds. in parallel.
IT **194537-83-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of etonitazene-related benzimidazoles and amide derivs.)
RN 194537-83-2 CAPLUS
CN 1H-Benzimidazole-1-ethanamine, N,N-diethyl-5-nitro-2-phenyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 80 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 02 May 1997
ACCESSION NUMBER: 1997:281512 CAPLUS
DOCUMENT NUMBER: 127:17624
TITLE: Synthesis and antimicrobial activity of 5-substituted 1-dialkylaminomethyl-2-arylbenzimidazole derivatives
AUTHOR(S): Ersan, Seyhan; Nacak, Sultan; Acar, Nilgun; Noyanalpan, Ningur
CORPORATE SOURCE: Faculty Pharmacy, Gazi University, Ankara, TR-06330, Turk.
SOURCE: Arzneimittel-Forschung (1997), 47(4), 410-412
CODEN: ARZNAD; ISSN: 0004-4172
PUBLISHER: Cantor
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



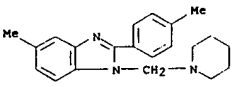
I

AB The title compds. I.HCl (R = Me, MeO, NO2; R1 = Me, MeO, NO2, Cl; R2 = piperidino, morpholino, NEt2) were prepared by reaction of appropriate 2-phenylbenzimidazoles with H2CO and a secondary amine. Microdilution susceptibility tests in Mueller-Hinton and Sabouraud dextrose broth were used for the determination of antibacterial and antifungal activities of compds. I against Staphylococcus, Enterococcus, Escherichia, Pseudomonas, and Candida. Compds. I (R = R1 = Me, R2 = piperidino; R = MeO, R1 = MeO or Me, R2 = morpholino; R = NO2, R1 = MeO, R2 = NEt2 or piperidino) showed slight to moderate activity against all microorganisms. Compound I (R = NO2, R1 = Cl, R2 = NEt2) showed the highest activity. It was found more potent than streptomycin against Enterococcus faecalis and Pseudomonas aeruginosa.

IT **190439-23-7P 190439-24-8P 190439-25-9P**
190439-26-0P 190439-27-1P 190439-28-2P
190439-31-7P 190439-32-8P 190439-34-0P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and antimicrobial activity of (dialkylaminomethyl)arylbenzimidazoles)

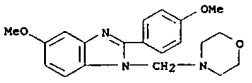
RN 190439-23-7 CAPLUS
CN 1H-Benzimidazole, 5-methyl-2-(4-methylphenyl)-1-(1-piperidinylmethyl)-, monohydrochloride (9CI) (CA INDEX NAME)

L4 ANSWER 80 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



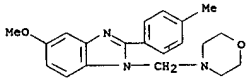
● HCl

RN 190439-24-8 CAPLUS
CN 1H-Benzimidazole, 5-methoxy-2-(4-methoxyphenyl)-1-(4-morpholinylmethyl)-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

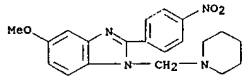
RN 190439-25-9 CAPLUS
CN 1H-Benzimidazole, 5-methoxy-2-(4-methylphenyl)-1-(4-morpholinylmethyl)-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

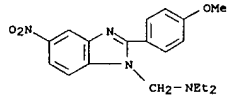
RN 190439-26-0 CAPLUS
CN 1H-Benzimidazole, 5-methoxy-2-(4-nitrophenyl)-1-(1-piperidinylmethyl)-, monohydrochloride (9CI) (CA INDEX NAME)

L4 ANSWER 80 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



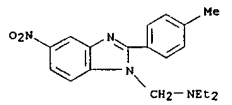
● HCl

RN 190439-27-1 CAPLUS
CN 1H-Benzimidazole-1-methanamine, N,N-diethyl-2-(4-methoxyphenyl)-5-nitro-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

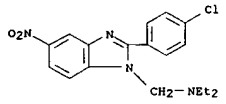
RN 190439-28-2 CAPLUS
CN 1H-Benzimidazole-1-methanamine, N,N-diethyl-2-(4-methylphenyl)-5-nitro-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

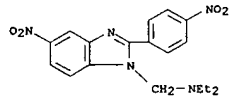
RN 190439-31-7 CAPLUS
CN 1H-Benzimidazole-1-methanamine, 2-(4-chlorophenyl)-N,N-diethyl-5-nitro-, monohydrochloride (9CI) (CA INDEX NAME)

L4 ANSWER 80 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



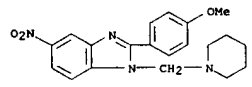
● HCl

RN 190439-32-8 CAPLUS
CN 1H-Benzimidazole-1-methanamine, N,N-diethyl-5-nitro-2-(4-nitrophenyl)-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 190439-34-0 CAPLUS
CN 1H-Benzimidazole, 2-(4-methoxyphenyl)-5-nitro-1-(1-piperidinylmethyl)-, monohydrochloride (9CI) (CA INDEX NAME)

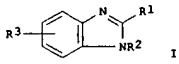


● HCl

L4 ANSWER 81 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 21 Sep 1996
ACCESSION NUMBER: 1996:563632 CAPLUS
DOCUMENT NUMBER: 125:300996
TITLE: Preparation of benzimidazoles useful for treating physiological disorders associated with β-amyloid peptide
INVENTOR(S): Lunn, William H. W.; Monn, James A.; Zimmerman, Dennis M.
PATENT ASSIGNEE(S): Eli Lilly and Company, USA
SOURCE: U.S., 30 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5552426	A	19960903	US 1994-235400	19940429
PRIORITY APPLN. INFO.:			US 1994-235400	19940429

OTHER SOURCE(S): MARPAT 125:300996
GI



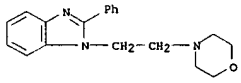
I

AB The title compds. [I; R1 = H, alkoxy, (un)substituted alkyl, (un)substituted Ph, (un)substituted naphthyl, (un)substituted cycloalkyl; R2 = H, alkyl, alkoxy, (un)substituted Ph, (un)substituted naphthyl, etc.; R3 = H, alkanoyl, amino, alkyl, cycloalkyl, halogen, alkylthio, CF3, etc.] [e.g., 1-phenyl-2-[3,4-dimethylphenyl]-6-[2-(1-piperidinyl)ethoxy]benzimidazole], which are useful in treating or preventing conditions associated with β-amyloid peptide (e.g., Alzheimer's disease, Down's syndrome, etc.), are prepared and I-containing formulations presented.

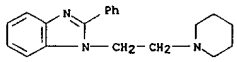
IT **14339-08-3P 14339-10-7P 175712-81-9P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of benzimidazoles useful for treating physiol. disorders associated with β-amyloid peptide)

RN 14339-08-3 CAPLUS
CN 1H-Benzimidazole, 2-phenyl-1-[2-(1-piperidinyl)ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

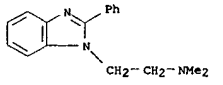
L4 ANSWER 81 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



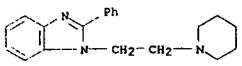
RN 14339-09-4 CAPLUS
CN 1H-Benzimidazole, 2-phenyl-1-[2-(1-piperidinyl)ethyl]- (9CI) (CA INDEX NAME)



RN 175714-49-5 CAPLUS
CN 1H-Benzimidazole-1-ethanamine, N,N-dimethyl-2-phenyl- (9CI) (CA INDEX NAME)

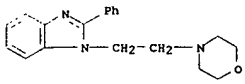


L4 ANSWER 81 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



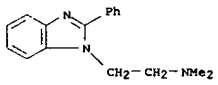
●2 HCl

RN 14339-10-7 CAPLUS
CN 1H-Benzimidazole, 1-[2-(4-morpholinyl)ethyl]-2-phenyl-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 175712-81-9 CAPLUS
CN 1H-Benzimidazole-1-ethanamine, N,N-dimethyl-2-phenyl-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

IT **5322-96-3P 14339-09-4P 175714-49-5P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of benzimidazoles useful for treating physiol. disorders associated with β-amyloid peptide)

RN 5322-96-3 CAPLUS
CN 1H-Benzimidazole, 1-[2-(4-morpholinyl)ethyl]-2-phenyl- (9CI) (CA INDEX NAME)

L4 ANSWER 82 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 30 Apr 1996
ACCESSION NUMBER: 1996:252224 CAPLUS
DOCUMENT NUMBER: 124:289536
TITLE: Preparation of benzimidazole derivatives as non-peptide tachykinin receptor antagonists
INVENTOR(S): Burns, Robert Frederick, Jr.; Gitter, Bruce Donald; Monn, James Allen; Zimmerman, Dennis Michael
PATENT ASSIGNEE(S): Eli Lilly and Co., USA
SOURCE: Can. Pat. Appl., 143 pp.
CODEN: CPXXEB
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2148053	AA	19951030	CA 1995-2148053	19950427
EP 694535	A1	19960131	EP 1995-302707	19950424
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
ZA 9503311	A	19961024	ZA 1995-3311	19950424
BR 9501770	A	19951121	BR 1995-1770	19950425
AU 9517656	A1	19951109	AU 1995-17656	19950426
CN 1113236	A	19951213	CN 1995-104725	19950426
NO 9501613	A	19951030	NO 1995-1613	19950427
FI 9502064	A	19951030	FI 1995-2064	19950428
HU 70637	A2	19951030	HU 1995-1249	19950428
JP 08109169	A2	19960430	JP 1995-105297	19950428
PRIORITY APPLN. INFO.:			US 1994-235401 A	19940429

OTHER SOURCE(S): CASREACT 124:289536; MARPAT 124:289536
GI

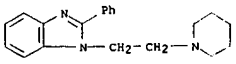
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. [I; R1, R2 = H, C1-C12 alkyl, C1-C6 alkoxy, etc.; R3 = H, NO2, C1-C6 alkanoyl, etc.], useful in treatment of CNS disorders, acute and chronic obstructive airway diseases, inflammatory diseases, allergies, cutaneous diseases, etc., were prepared and formulated. Condensation of 4,3-H2N(O2N)C6H3OH with 3,4,5-(MeO)3C6H2COCl in PhNMe2/PhMe followed by reaction of the intermediate II with PhCHO under H2 in the presence of Pd/C in DMF, cyclization of the intermediate III using POCl3/CHCl3, deprotection of the 6-OH group with 1N NaOH/THF and acidification with 1N HCl afforded I.HCl [R1 = 3,4,5-(MeO)3C6H2; R2 = PhCH2; R3 = 6-OH] which showed IC50 of 1.130 μM against binding to human NK-1 receptor in cultured cell assays.

IT **14339-08-3P 14339-10-7P 175712-81-9P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of benzimidazole derivs. as non-peptide tachykinin receptor antagonists)

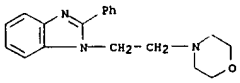
RN 14339-08-3 CAPLUS
CN 1H-Benzimidazole, 2-phenyl-1-[2-(1-piperidinyl)ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

L4 ANSWER 82 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



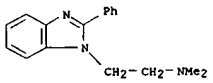
●2 HCl

RN 14339-10-7 CAPLUS
CN 1H-Benzimidazole, 1-[2-(4-morpholinyl)ethyl]-2-phenyl-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

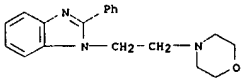
RN 175712-81-9 CAPLUS
CN 1H-Benzimidazole-1-ethanamine, N,N-dimethyl-2-phenyl-, dihydrochloride (9CI) (CA INDEX NAME)



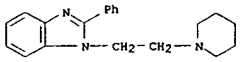
●2 HCl

IT **5322-96-3P 14339-09-4P 175714-49-5P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of benzimidazole derivs. as non-peptide tachykinin receptor antagonists)
RN 5322-96-3 CAPLUS
CN 1H-Benzimidazole, 1-[2-(4-morpholinyl)ethyl]-2-phenyl- (9CI) (CA INDEX NAME)

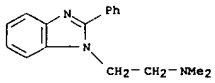
L4 ANSWER 82 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



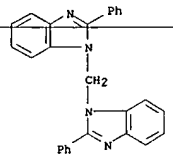
RN 14339-09-4 CAPLUS
CN 1H-Benzimidazole, 2-phenyl-1-[2-(1-piperidinyl)ethyl]- (9CI) (CA INDEX NAME)



RN 175714-49-5 CAPLUS
CN 1H-Benzimidazole-1-ethanamine, N,N-dimethyl-2-phenyl- (9CI) (CA INDEX NAME)

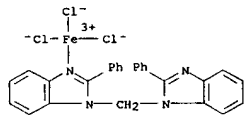


L4 ANSWER 83 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 08 Mar 1996
ACCESSION NUMBER: 1996:137359 CAPLUS
DOCUMENT NUMBER: 124:276799
TITLE: Synthesis and characterization of iron(III) complexes with N,N'-bis(2-phenylbenzimidazolyl)methane
AUTHOR(S): Prasad, Magan; Mathur, Pavan
CORPORATE SOURCE: Department Chemistry, University Delhi, Delhi, 110 007, India
SOURCE: Indian Journal of Chemistry, Section A: Inorganic, Bio-inorganic, Physical, Theoretical & Analytical Chemistry (1996), 35A(1), 55-6
CODEN: ICACEC; ISSN: 0376-4710
PUBLISHER: Publications & Information Directorate, CSIR
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The potentially bidentate ligand, N,N'-bis(2-phenylbenzimidazolyl)methane (BPBM) was used to synthesize iron(III) complexes, [FeCl3(BPBM)].3H2O and [Fe(NO3)3(BPBM)].H2O. 1H NMR spectra showed both upfield and downfield shifted peaks for ligand protons. The Moessbauer spectral data reveal high spin ferric ion and lower value of isomer shift indicates substantial covalency in Fe(III) ligand bond. The present Fe(III) complexes appear to activate the oxidation of tetramethylphenylenediamine by mol. oxygen.
IT **94154-68-4P**, N,N'-Bis(2-phenylbenzimidazolyl)methane
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and complexation with iron(III))
RN 94154-68-4 CAPLUS
CN 1H-Benzimidazole, 1,1'-methylenebis[2-phenyl- (9CI) (CA INDEX NAME)



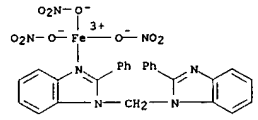
IT **175292-26-9P 175292-27-0P**
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(preparation and oxidation of tetramethylphenylenediamine by mol. oxygen in presence of)
RN 175292-26-9 CAPLUS
CN Iron, trichloro[1,1'-methylenebis[2-phenyl-1H-benzimidazole]-N3]-, trihydrate (9CI) (CA INDEX NAME)

L4 ANSWER 83 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



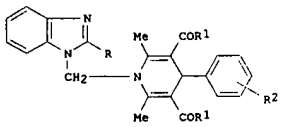
●3 H2O

RN 175292-27-0 CAPLUS
CN Iron, [1,1'-methylenebis[2-phenyl-1H-benzimidazole]-N3]tris(nitrato-O)-, monohydrate (9CI) (CA INDEX NAME)



● H2O

L4 ANSWER 84 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 08 Dec 1995
ACCESSION NUMBER: 1995:972519 CAPLUS
DOCUMENT NUMBER: 124:145995
TITLE: Synthesis and biological activity of some new 2-alkyl-1-(1'-dihydropyridylmethyl)benzimidazoles
AUTHOR(S): Mane, D. V.; Shinde, D. B.; Thore, S. N.; Shingare, M. S.
CORPORATE SOURCE: Dep. Chem., Dr. Babasaheb Ambedkar Marathawada Univ., Aurangabad, 431 004, India
SOURCE: Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1995), 34B(10), 917-19
CODEN: IJSBDB; ISSN: 0376-4699
PUBLISHER: Publications & Information Directorate, CSIR
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 124:145995
GI



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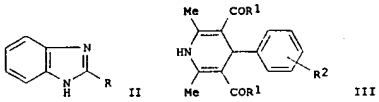


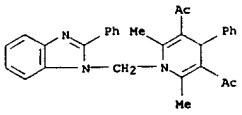
II III

AB The synthesis and biol. evaluation of 2-alkyl-1-(1'-dihydropyridylmethyl)benzimidazoles I (R = H, Me, Et, Ph; R1 = Me, OMe, OEt; R2 = H, 4-Me, 4-OMe, 2-Me, 3-OMe, 4-Cl, 4-Br, 4-NO2, etc.) are described. The compds. were prepared by condensing benzimidazoles II with HCHO and dihydropyridines III. These compds. have been found to possess promising antibacterial and antifungal activities.

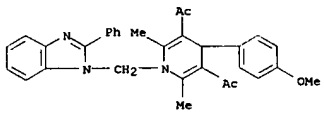
IT **173470-34-3P 173470-35-4P 173470-36-5P**
173470-37-6P 173470-38-7P 173470-39-8P
173470-40-1P 173470-41-2P 173470-42-3P
173470-43-4P 173470-44-5P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation, bactericidal, and fungicidal activity of (pyridylmethyl)benzimidazoles)

RN 173470-34-3 CAPLUS
CN Ethanone, 1,1'-[1,4-dihydro-2,6-dimethyl-4-phenyl-1-[(2-phenyl-1H-benzimidazol-1-yl)methyl]-3,5-pyridinediyl]bis- (9CI) (CA INDEX NAME)

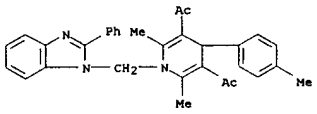
L4 ANSWER 84 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 173470-35-4 CAPLUS
CN Ethanone, 1,1'-[1,4-dihydro-4-(4-methoxyphenyl)-2,6-dimethyl-1-[(2-phenyl-1H-benzimidazol-1-yl)methyl]-3,5-pyridinediyl]bis- (9CI) (CA INDEX NAME)

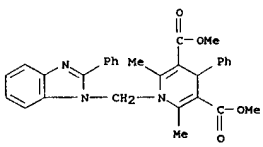


RN 173470-36-5 CAPLUS
CN Ethanone, 1,1'-[1,4-dihydro-2,6-dimethyl-4-(4-methylphenyl)-1-[(2-phenyl-1H-benzimidazol-1-yl)methyl]-3,5-pyridinediyl]bis- (9CI) (CA INDEX NAME)

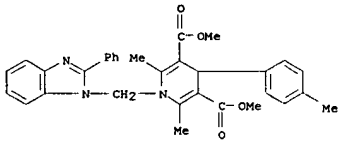


RN 173470-37-6 CAPLUS
CN 3,5-Pyridinedicarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-phenyl-1-[(2-phenyl-1H-benzimidazol-1-yl)methyl]-, dimethyl ester (9CI) (CA INDEX NAME)

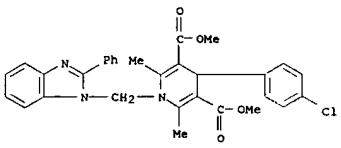
L4 ANSWER 84 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 173470-38-7 CAPLUS
CN 3,5-Pyridinedicarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-(4-methylphenyl)-1-[(2-phenyl-1H-benzimidazol-1-yl)methyl]-, dimethyl ester (9CI) (CA INDEX NAME)

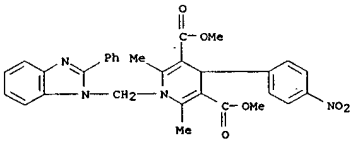


RN 173470-39-8 CAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(4-chlorophenyl)-1,4-dihydro-2,6-dimethyl-1-[(2-phenyl-1H-benzimidazol-1-yl)methyl]-, dimethyl ester (9CI) (CA INDEX NAME)

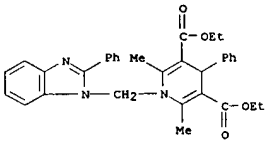


RN 173470-40-1 CAPLUS
CN 3,5-Pyridinedicarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-(4-nitrophenyl)-1-[(2-phenyl-1H-benzimidazol-1-yl)methyl]-, dimethyl ester (9CI) (CA INDEX NAME)

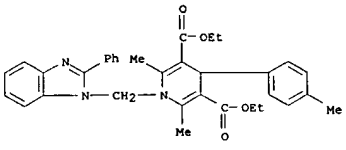
L4 ANSWER 84 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 173470-41-2 CAPLUS
CN 3,5-Pyridinedicarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-phenyl-1-[(2-phenyl-1H-benzimidazol-1-yl)methyl]-, diethyl ester (9CI) (CA INDEX NAME)

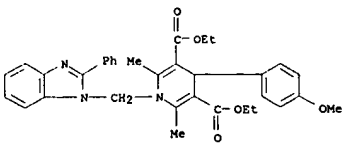


RN 173470-42-3 CAPLUS
CN 3,5-Pyridinedicarboxylic acid, 1,4-dihydro-2,6-dimethyl-4-(4-methylphenyl)-1-[(2-phenyl-1H-benzimidazol-1-yl)methyl]-, diethyl ester (9CI) (CA INDEX NAME)

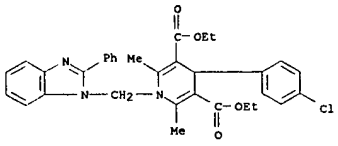


RN 173470-43-4 CAPLUS
CN 3,5-Pyridinedicarboxylic acid, 1,4-dihydro-4-(4-methoxyphenyl)-2,6-dimethyl-1-[(2-phenyl-1H-benzimidazol-1-yl)methyl]-, diethyl ester (9CI) (CA INDEX NAME)

L4 ANSWER 84 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

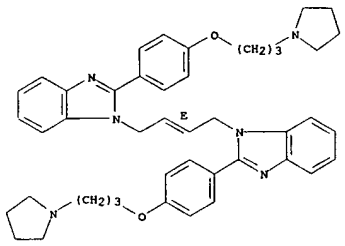


RN 173470-44-5 CAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(4-chlorophenyl)-1,4-dihydro-2,6-dimethyl-1-[(2-phenyl-1H-benzimidazol-1-yl)methyl]-, diethyl ester (9CI) (CA INDEX NAME)



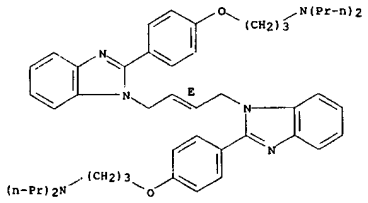
L4 ANSWER 85 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 14 Nov 1995
ACCESSION NUMBER: 1995:915314 CAPLUS
DOCUMENT NUMBER: 124:75520
TITLE: Discovery of selective dopamine D3 ligands. I. Dimeric 2-[4-(3-aminopropoxy)phenyl]benzimidazole antagonists
AUTHOR(S): Wright, Jon; Downing, Dennis; Heffner, Thomas; Pugsley, Thomas; MacKenzie, Robert; Wise, Lawrence
CORPORATE SOURCE: Dep. Chemistry and Therapeutics, Div. Warner-Lambert Company, Ann Arbor, MI, 48105, USA
SOURCE: Bioorganic & Medicinal Chemistry Letters (1995), 5(21), 2541-6
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A novel series of dimeric 2-[4-(3-aminopropoxy)phenyl]benzimidazole dopamine (DA) D3 receptor antagonists has been discovered. Most of the dimeric structure is needed for DA binding activity; however, a second basic nitrogen atom is not required. A representative compound had no effects on DA synthesis in rat brain but inhibited spontaneous locomotor activity in mice and stimulated locomotor activity in habituated rats.
IT **164917-18-4P 164917-19-5P 164917-22-0P**
164917-23-1P 164917-25-3P 164917-27-5P
164917-29-7P 172753-60-5P 172753-61-6P
172753-62-7P 172753-63-8P 172753-64-9P
172753-65-0P 172753-66-1P 172753-67-2P
172753-68-3P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(dopaminergic D3 antagonists - dimeric [(aminopropoxy)phenyl]benzimidazoles)
RN 164917-18-4 CAPLUS
CN 1H-Benzimidazole, 1,1'-(2-butene-1,4-diyl)bis[2-[4-[3-(1-pyrrolidinyl)propoxy]phenyl]-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



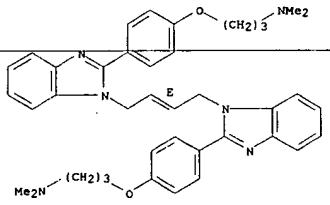
L4 ANSWER 85 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
RN 164917-19-5 CAPLUS
CN 1-Propanamine, 3,3'-[2-butene-1,4-diylbis(1H-benzimidazole-1,2-diyl-4,1-phenyleneoxy)]bis[N,N-dipropyl-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 164917-22-0 CAPLUS
CN 1-Propanamine, 3,3'-[2-butene-1,4-diylbis(1H-benzimidazole-1,2-diyl-4,1-phenyleneoxy)]bis[N,N-dimethyl-, (E)- (9CI) (CA INDEX NAME)

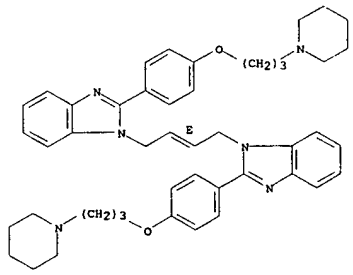
Double bond geometry as shown.



RN 164917-23-1 CAPLUS
CN 1H-Benzimidazole, 1,1'-(2E)-2-butene-1,4-diylbis[2-[4-[3-(1-piperidinyl)propoxy]phenyl]- (9CI) (CA INDEX NAME)

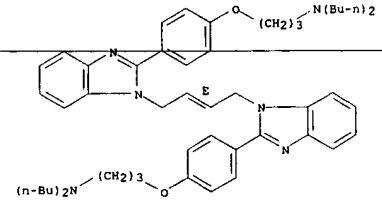
Double bond geometry as shown.

L4 ANSWER 85 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 164917-25-3 CAPLUS
CN 1-Butanamine, N,N'-[2-butene-1,4-diylbis(1H-benzimidazole-1,2-diyl-4,1-phenyleneoxy-3,1-propanediyl)]bis[N-butyl-, (E)- (9CI) (CA INDEX NAME)

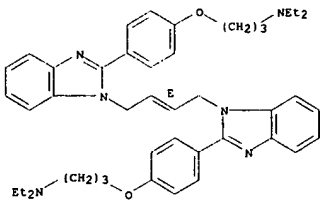
Double bond geometry as shown.



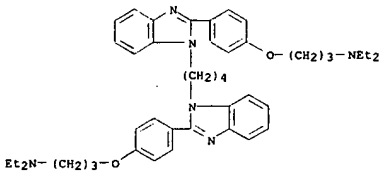
RN 164917-27-5 CAPLUS
CN 1-Propanamine, 3,3'-[2-butene-1,4-diylbis(1H-benzimidazole-1,2-diyl-4,1-phenyleneoxy)]bis[N,N-diethyl-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

L4 ANSWER 85 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



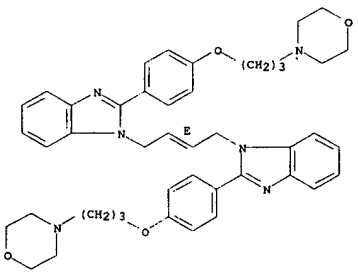
RN 164917-29-7 CAPLUS
CN 1-Propanamine, 3,3'-[1,4-butanediylbis(1H-benzimidazole-1,2-diyl-4,1-phenyleneoxy)]bis[N,N-diethyl- (9CI) (CA INDEX NAME)



RN 172753-60-5 CAPLUS
CN 1-Propanamine, 3,3'-[2-butene-1,4-diylbis(1H-benzimidazole-1,2-diyl-4,1-phenyleneoxy)]bis[N,N-diethyl-, (Z)- (9CI) (CA INDEX NAME)

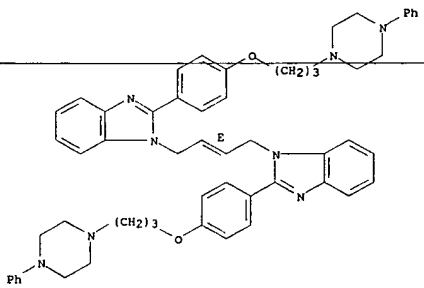
Double bond geometry as shown.

L4 ANSWER 85 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 172753-63-8 CAPLUS
CN 1H-Benzimidazole, 1,1'-(2-butene-1,4-diyl)bis[2-[4-[3-(4-phenyl-1-piperazinyl)propoxy]phenyl]-, (E)- (9CI) (CA INDEX NAME)

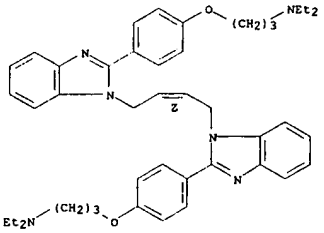
Double bond geometry as shown.



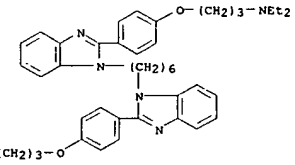
RN 172753-64-9 CAPLUS
CN 1-Propanamine, N,N-diethyl-3-[4-[1-[4-(2-methyl-1H-benzimidazol-1-yl)-2-butenyl]-1H-benzimidazol-2-yl]phenoxy]-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

L4 ANSWER 85 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



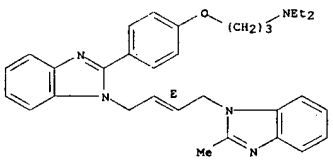
RN 172753-61-6 CAPLUS
CN 1-Propanamine, 3,3'-[1,6-hexanediylbis(1H-benzimidazole-1,2-diyl-4,1-phenyleneoxy)]bis[N,N-diethyl- (9CI) (CA INDEX NAME)



RN 172753-62-7 CAPLUS
CN 1H-Benzimidazole, 1,1'-(2-butene-1,4-diyl)bis[2-[4-[3-(4-morpholinyl)propoxy]phenyl]-, (E)- (9CI) (CA INDEX NAME)

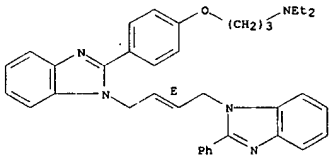
Double bond geometry as shown.

L4 ANSWER 85 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



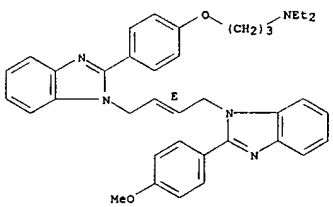
RN 172753-65-0 CAPLUS
CN 1-Propanamine, N,N-diethyl-3-[4-[1-[4-(2-phenyl-1H-benzimidazol-1-yl)-2-butenyl]-1H-benzimidazol-2-yl]phenoxy]-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 172753-66-1 CAPLUS
CN 1-Propanamine, N,N-diethyl-3-[4-[1-[4-[2-(4-methoxyphenyl)-1H-benzimidazol-1-yl]-2-butenyl]-1H-benzimidazol-2-yl]phenoxy]-, (E)- (9CI) (CA INDEX NAME)

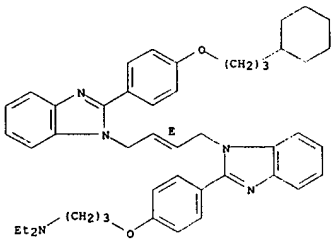
Double bond geometry as shown.



RN 172753-67-2 CAPLUS
CN 1-Propanamine, 3-[4-[1-[4-[2-[4-(3-cyclohexylpropoxy)phenyl]-1H-benzimidazol-1-yl]-2-butenyl]-1H-benzimidazol-2-yl]phenoxy]-N,N-diethyl-, (E)- (9CI) (CA INDEX NAME)

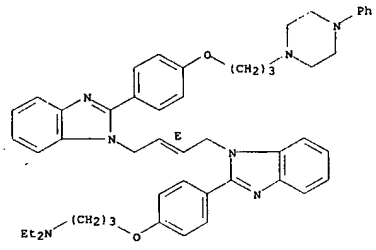
Double bond geometry as shown.

L4 ANSWER 85 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 172753-68-3 CAPLUS
CN 1-Propanamine, N,N-diethyl-3-[4-[1-[4-[2-[4-[3-(4-phenyl-1-piperazinyl)propoxy]phenyl]-1H-benzimidazol-1-yl]-2-butenyl]-1H-benzimidazol-2-yl]phenoxy]-, (E)- (9CI) (CA INDEX NAME)

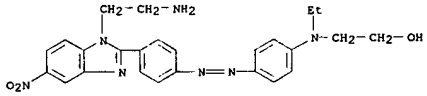
Double bond geometry as shown.



L4 ANSWER 86 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
polymer with 2-[[4-[[4-[1-(2-aminoethyl)-5-nitro-1H-benzimidazol-2-yl]phenyl]azo]phenyl]ethylamino]ethanol (9CI) (CA INDEX NAME)

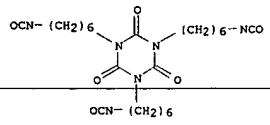
CM 1

CRN 159633-55-3
CMF C25 H27 N7 O3



CM 2

CRN 3779-63-3
CMF C24 H36 N6 O6



L4 ANSWER 86 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 14 Sep 1995
ACCESSION NUMBER: 1995:791933 CAPLUS
DOCUMENT NUMBER: 123:200232
TITLE: Bifunctional dyes for cross-linked nonlinear optical polymers
AUTHOR(S): White, Kenneth M.; Cross, Elisa M.; Francis, Cecil V.; Moshrefzadeh, Robert S.
CORPORATE SOURCE: Photonics Res. Lab., 3M Company, St. Paul, MN, 55144-1000, USA
SOURCE: ACS Symposium Series (1995), 601(Polymers for Second-Order Nonlinear Optics), 401-11
CODEN: ACSMC8; ISSN: 0097-6156
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

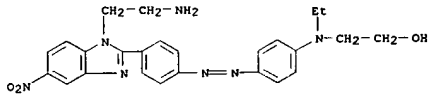
AB The incorporation of bifunctional (amino alc.), nonlinear optical dyes into Tolonate HDT-based, crosslinked polyurea-polyurethanes via a two-step pole and cure process has produced materials that have significant potential for use in thin film electrooptic devices. Exptl. results for two dyes that have been designed and synthesized for these polymer systems are presented and compared. Second-harmonic generation, electrooptical, and thermally stimulated current measurements have been employed to determine the magnitude of the nonlinear optical response and its temporal stability in these materials. Thermal stability of the response was also investigated.

IT **159633-59-7 159633-60-0**
RL: PRP (Properties)
(optical nonlinear polyurea-polyurethanes)

RN 159633-59-7 CAPLUS
CN Ethanol, 2-[[4-[[4-[1-(2-aminoethyl)-5-nitro-1H-benzimidazol-2-yl]phenyl]azo]phenyl]ethylamino]-, polymer with Tolonate HDT (9CI) (CA INDEX NAME)

CM 1

CRN 159633-55-3
CMF C25 H27 N7 O3



CM 2

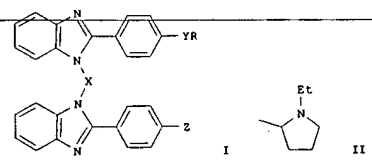
CRN 118550-50-8
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 159633-60-0 CAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(6-isocyanatohexyl)-,

L4 ANSWER 87 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 09 Jun 1995
ACCESSION NUMBER: 1995:602401 CAPLUS
DOCUMENT NUMBER: 123:55882
TITLE: Dimeric benzimidazoles as selective dopamine D3 receptor antagonists
INVENTOR(S): Downing, Dennis M.; Wise, Lawrence D.; Wright, Jonathan L.
PATENT ASSIGNEE(S): Warner-Lambert Co., USA
SOURCE: U.S., 11 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5414010	A	19950509	US 1994-240354	19940510
WO 9530658	A1	19951116	WO 1995-US3814	19950327
W: AM, AU, BB, BY, CA, CN, CZ, EE, FI, GE, HU, JP, KG, KR, KZ, LT, LV, MD, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, UA, UZ				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9521976	A1	19951129	AU 1995-21976	19950327
ZA 9503751	A	19960111	ZA 1995-3751	19950509
PRIORITY APPLN. INFO.:			US 1994-240354 A	19940510
			WO 1995-US3814 W	19950327

OTHER SOURCE(S): MARPAT 123:55882
GI



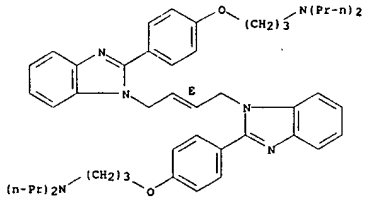
AB Dimeric benzimidazoles I [wherein R is NR1R2 wherein R1 and R2 are each the same or different and each is alkyl of from 1 to 6 carbon atoms, alkenyl of from 2 to 6 carbon atoms, alkynyl of from 2 to 6 carbon atoms, arylalkyl wherein alkyl is from 1 to 6 carbon atoms, 2-thienylalkyl wherein alkyl is from 1 to 6 carbon atoms or R1 and R2 together with the nitrogen which they substitute form a 1-piperidinyl, or 1-pyrrolidinyl ring or R is II; X is alkyl of from 2 to 6 carbon atoms, alkenyl of from 2 to 6 carbon atoms, or alkynyl of from 2 to 6 carbon atoms; Y is O(CH2)n wherein n is an integer of from 2 to 6, or CONH(CH2)p wherein p is zero or an integer of from 1 to 6; and Z is hydrogen, hydroxyl, alkyl of from 1 to 6 carbon atoms, alkoxy of from 1 to 6 carbon atoms, or Y--R wherein Y and R are as defined above; and corresponding isomers thereof; or a pharmaceutically acceptable acid addition salt thereof] are described, as well as methods for the preparation and pharmaceutical composition of same, which are useful as central nervous system agents and are particularly useful as antipsychotic agents and for the treatment of disorders which respond to dopaminergic blockade including psychotic depression, substance abuse, and

L4 ANSWER 87 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
compulsive disorders. Thus, e.g., alkenylation of 2-[4-[3-(1-pyrrolidinyl)propoxy]phenyl]-1H-benzimidazole (prepn. given) with trans-1,4-dichloro-2-butene afforded (E)-1,1'-(2-butene-1,4-diyl)bis[2-[4-[3-(1-pyrrolidinyl)propoxy]phenyl]-1H-benzimidazole] which inhibited [3H]spiperone binding to human D3 receptors with IC50 = 9 nM vs. 56 nM for human D2 receptors.

IT 164917-19-5P
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); RACT (Reactant or reagent); USES (Uses)
(dimeric benzimidazoles as selective dopamine D3 receptor antagonists)

RN 164917-19-5 CAPLUS
CN 1-Propanamine, 3,3'-[2-butene-1,4-diylbis(1H-benzimidazole-1,2-diyl-4,1-phenyleneoxy)]bis[N,N-dipropyl-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

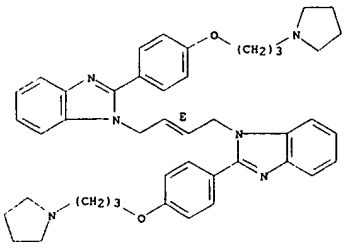


IT 164917-18-4P 164917-20-8P 164917-22-0P
164917-23-1P 164917-24-2P 164917-25-3P
164917-26-4P 164917-27-5P 164917-28-6P
164917-29-7P 164917-30-0P 164917-31-1P
164917-32-2P 164917-33-3P 164917-34-4P
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(dimeric benzimidazoles as selective dopamine D3 receptor antagonists)

RN 164917-18-4 CAPLUS
CN 1H-Benzimidazole, 1,1'-(2-butene-1,4-diyl)bis[2-[4-[3-(1-pyrrolidinyl)propoxy]phenyl]-, (E)- (9CI) (CA INDEX NAME)

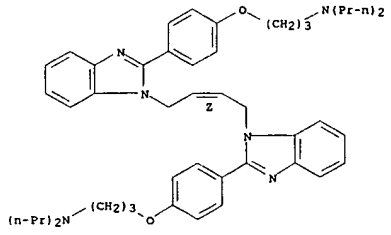
Double bond geometry as shown.

L4 ANSWER 87 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 164917-20-8 CAPLUS
CN 1-Propanamine, 3,3'-[2-butene-1,4-diylbis(1H-benzimidazole-1,2-diyl-4,1-phenyleneoxy)]bis[N,N-dipropyl-, (Z)- (9CI) (CA INDEX NAME)

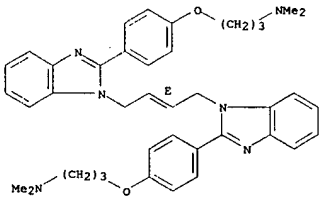
Double bond geometry as shown.



RN 164917-22-0 CAPLUS
CN 1-Propanamine, 3,3'-[2-butene-1,4-diylbis(1H-benzimidazole-1,2-diyl-4,1-phenyleneoxy)]bis[N,N-dimethyl-, (E)- (9CI) (CA INDEX NAME)

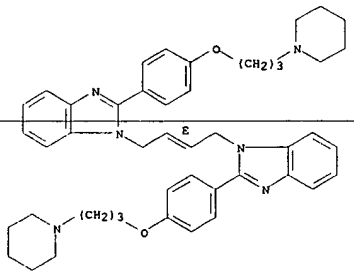
Double bond geometry as shown.

L4 ANSWER 87 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 164917-23-1 CAPLUS
CN 1H-Benzimidazole, 1,1'-(2E)-2-butene-1,4-diylbis[2-[4-[3-(1-piperidinyl)propoxy]phenyl]- (9CI) (CA INDEX NAME)

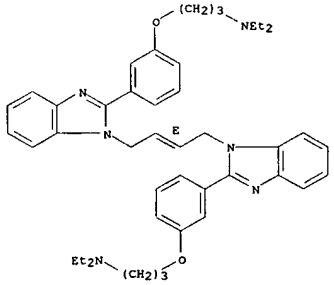
Double bond geometry as shown.



RN 164917-24-2 CAPLUS
CN 1-Propanamine, 3,3'-[2-butene-1,4-diylbis(1H-benzimidazole-1,2-diyl-3,1-phenyleneoxy)]bis[N,N-diethyl-, (E)- (9CI) (CA INDEX NAME)

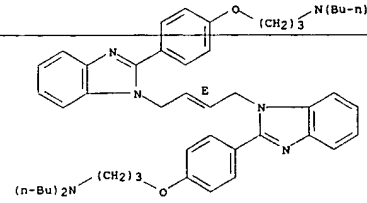
Double bond geometry as shown.

L4 ANSWER 87 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 164917-25-3 CAPLUS
CN 1-Butanamine, N,N'-[2-butene-1,4-diylbis(1H-benzimidazole-1,2-diyl-4,1-phenyleneoxy-3,1-propanediyl)]bis[N-butyl-, (E)- (9CI) (CA INDEX NAME)

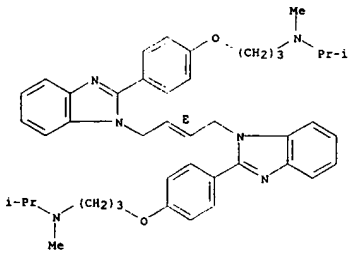
Double bond geometry as shown.



RN 164917-26-4 CAPLUS
CN 1-Propanamine, 3,3'-[2-butene-1,4-diylbis(1H-benzimidazole-1,2-diyl-4,1-phenyleneoxy)]bis[N-methyl-N-(1-methylethyl)-, (E)- (9CI) (CA INDEX NAME)

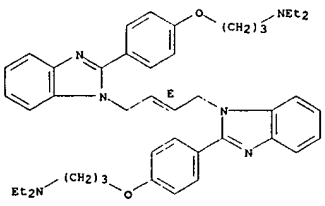
Double bond geometry as shown.

L4 ANSWER 87 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



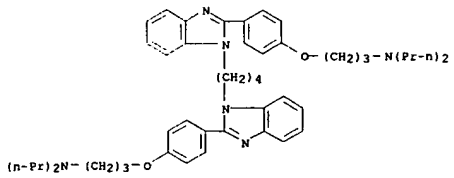
RN 164917-27-5 CAPLUS
CN 1-Propanamine, 3,3'-(2-butene-1,4-diylbis(1H-benzimidazole-1,2-diyl-4,1-phenyleneoxy))bis[N,N-diethyl-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

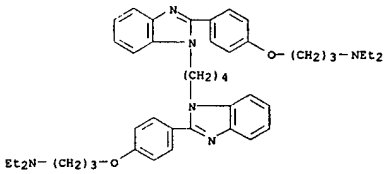


RN 164917-28-6 CAPLUS
CN 1-Propanamine, 3,3'-[1,4-butanediylbis(1H-benzimidazole-1,2-diyl-4,1-phenyleneoxy)]bis[N,N-dipropyl- (9CI) (CA INDEX NAME)

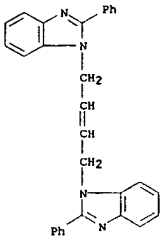
L4 ANSWER 87 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 164917-29-7 CAPLUS
CN 1-Propanamine, 3,3'-[1,4-butanediylbis(1H-benzimidazole-1,2-diyl-4,1-phenyleneoxy)]bis[N,N-diethyl- (9CI) (CA INDEX NAME)

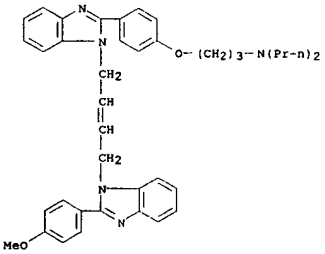


RN 164917-30-0 CAPLUS
CN 1H-Benzimidazole, 1,1'-(2-butene-1,4-diyl)bis[2-phenyl- (9CI) (CA INDEX NAME)



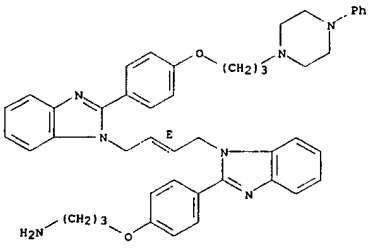
L4 ANSWER 87 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

RN 164917-31-1 CAPLUS
CN 1-Propanamine, 3-[4-[1-[4-[2-(4-methoxyphenyl)-1H-benzimidazol-1-yl]-2-butenyl]-1H-benzimidazol-2-yl]phenoxy]-N,N-dipropyl- (9CI) (CA INDEX NAME)



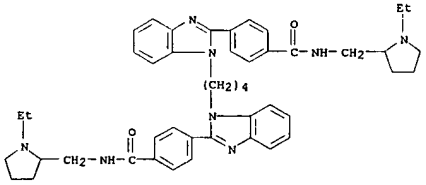
RN 164917-32-2 CAPLUS
CN 1-Propanamine, 3-[4-[1-[4-[2-[4-[3-(4-phenyl-1-piperazinyl)propoxy]phenyl]-1H-benzimidazol-1-yl]-2-butenyl]-1H-benzimidazol-2-yl]phenoxy]-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

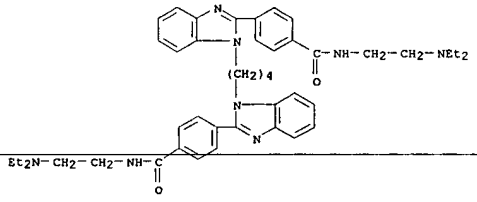


RN 164917-33-3 CAPLUS
CN Benzamide, 4,4'-[1,4-butanediylbis(1H-benzimidazole-1,2-diyl)]bis[N-[(1-ethyl-2-pyrrolidinyl)methyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 87 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

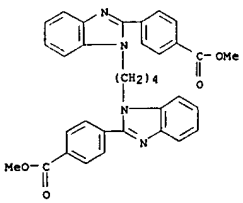


RN 164917-34-4 CAPLUS
CN Benzamide, 4,4'-[1,4-butanediylbis(1H-benzimidazole-1,2-diyl)]bis[N-[2-(diethylamino)ethyl]- (9CI) (CA INDEX NAME)

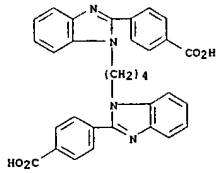


IT **164917-38-8P**, 4,4'-(1,4-Butanediyldi-1H-benzimidazol-1,2-diyl)benzoic acid, dimethyl ester **164917-39-9P**, 4,4'-(1,4-Butanediyldi-1H-benzimidazol-1,2-diyl)benzoic acid
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(dimeric benzimidazoles as selective dopamine D3 receptor antagonists)
RN 164917-38-8 CAPLUS
CN Benzoic acid, 4,4'-[1,4-butanediylbis(1H-benzimidazole-1,2-diyl)]bis-, dimethyl ester (9CI) (CA INDEX NAME)

L4 ANSWER 87 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

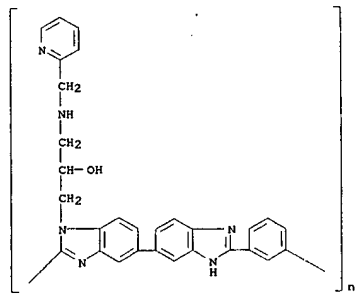


RN 164917-39-9 CAPLUS
CN Benzoic acid, 4,4'-[1,4-butanediylbis(1H-benzimidazole-1,2-diyl)]bis- (9CI) (CA INDEX NAME)

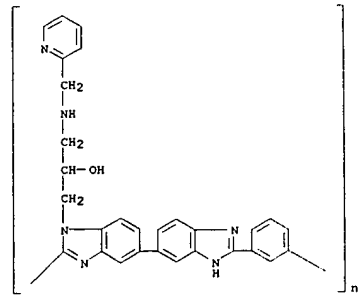


L4 ANSWER 88 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 11 Apr 1995
ACCESSION NUMBER: 1995:479084 CAPLUS
DOCUMENT NUMBER: 123:256451
TITLE: Alkene epoxidations catalyzed by Mo(VI) supported on imidazole-containing polymers. II. Recycling of polybenzimidazole-supported Mo(VI) in the epoxidation of cyclohexene
AUTHOR(S): Miller, Matthew M.; Sherrington, David C.
CORPORATE SOURCE: Department of Pure and Applied Chemistry, University of Strathclyde, Scotland, Gl 1 XL, UK
SOURCE: Journal of Catalysis (1995), 152(2), 377-83
CODEN: JCTLA5; ISSN: 0021-9517
PUBLISHER: Academic
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Mo(VI) has been supported on a polybenzimidazole resin and used as an epoxidn. catalyst in the reaction of tert-Bu hydroperoxide (TBHP) with cyclohexene. A preliminary kinetic study has suggested that mass transfer of TBHP might be rate-limiting. The activation energy is higher than that of an analogous homogeneous reaction catalyzed by MoO2(acac)2. Nevertheless, the supported catalyst is highly active and has been recycled nine times with no detectable loss of Mo from the support, but with a decline in activity. Activation of the polymer catalyst by pretreatment with TBHP for periods up to 48 h does not influence the activity of the catalyst on first use; however, higher activity is retained on recycling. The imidazole ligand on the polymer appears to bind the Mo centers very effectively and Mo leaching is not responsible for the decay in activity on recycling. The most likely explanation for this is the blockage of access to catalytic sites in the polymer by accumulation of side-products (oligomer) from cyclohexene or its epoxide.
IT **168784-20-1D**, reaction product with epichlorohydrin and (aminomethyl)pyridine, molybdenum complex
RL: CAT (Catalyst use); USES (Uses)
(alkene epoxidn. catalyzed by Mo(VI) supported on modified polybenzimidazole)
RN 168784-20-1 CAPLUS
CN Poly[[1-[2-hydroxy-3-[(2-pyridinylmethyl)amino]propyl][5,5'-bi-1H-benzimidazole]-2,2'-diyl]-1,3-phenylene] (9CI) (CA INDEX NAME)

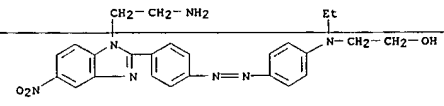
L4 ANSWER 88 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



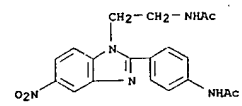
IT **168784-20-1DP**, reaction product with epichlorohydrin and (aminomethyl)pyridine
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(alkene epoxidn. catalyzed by Mo(VI) supported on modified polybenzimidazole)
RN 168784-20-1 CAPLUS
CN Poly[[1-[2-hydroxy-3-[(2-pyridinylmethyl)amino]propyl][5,5'-bi-1H-benzimidazole]-2,2'-diyl]-1,3-phenylene] (9CI) (CA INDEX NAME)



L4 ANSWER 89 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 22 Mar 1995
ACCESSION NUMBER: 1995:433597 CAPLUS
DOCUMENT NUMBER: 122:162193
TITLE: Azobenzimidazole Compounds and Polymers for Nonlinear Optics
AUTHOR(S): Cross, Elisa M.; White, Kenneth M.; Moshrefzadeh, Robert S.; Francis, Cecil V.
CORPORATE SOURCE: 3M Corporate Research Laboratory, St. Paul, MN, 55144-1000, USA
SOURCE: Macromolecules (1995), 28(7), 2526-32
CODEN: MAMOBX; ISSN: 0024-9297
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Novel difunctional nonlinear optical azo compds. with exceptional thermal stability have been synthesized and incorporated into side-chain and crosslinked polymers. The nonlinear optical response of these polymers has been studied with second-harmonic generation and electrooptic measurements. Channel waveguide intensity modulators displayed an electrooptic coefficient of 13.1 pm/V.
IT **159633-55-3P 159633-56-4P 159633-57-5P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(in preparation of azobenzimidazole containing polymers)
RN 159633-55-3 CAPLUS
CN Ethanol, 2-[[4-[[4-[1-(2-aminoethyl)-5-nitro-1H-benzimidazol-2-yl]phenyl]azo]phenyl]ethylamino]- (9CI) (CA INDEX NAME)

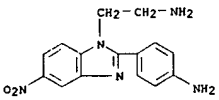


RN 159633-56-4 CAPLUS
CN Acetamide, N-[4-[1-[2-(acetylamino)ethyl]-5-nitro-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)



RN 159633-57-5 CAPLUS
CN 1H-Benzimidazole-1-ethanamine, 2-(4-aminophenyl)-5-nitro- (9CI) (CA INDEX NAME)

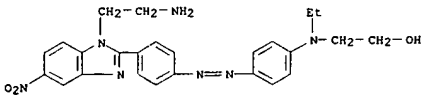
L4 ANSWER 89 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



IT **159633-59-7P**
RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(preparation and nonlinear optical properties and waveguide applications of azobenzimidazole containing polymers)
RN 159633-59-7 CAPLUS
CN Ethanol, 2-[[4-[[4-[1-(2-aminoethyl)-5-nitro-1H-benzimidazol-2-yl]phenyl]azo]phenyl]ethylamino]-, polymer with Tolonate HDT (9CI) (CA INDEX NAME)

CM 1

CRN 159633-55-3
CMF C25 H27 N7 O3



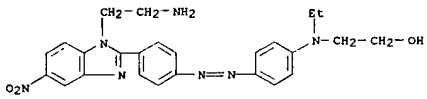
CM 2

CRN 118550-50-8
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

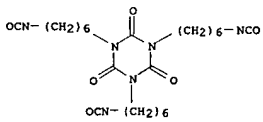
L4 ANSWER 90 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CM 1

CRN 159633-55-3
CMF C25 H27 N7 O3



CM 2

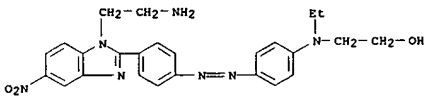
CRN 3779-63-3
CMF C24 H36 N6 O6



L4 ANSWER 90 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 19 Jan 1995
ACCESSION NUMBER: 1995:300940 CAPLUS
DOCUMENT NUMBER: 122:82792
TITLE: Orientational relaxation in cross-linked nonlinear optical polymers
AUTHOR(S): White, K. M.; Cross, E. M.
CORPORATE SOURCE: Photon. Res. Lab., 3M Co., St. Paul, MN, 55144-1000, USA
SOURCE: Journal of Applied Physics (1995), 77(2), 833-6
CODEN: JAPIAU; ISSN: 0021-8979
PUBLISHER: American Institute of Physics
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Stability of the electro-optic coefficient of a poled and crosslinked nonlinear optical azobenzimidazole-containing polymer is reported at 85, 100, and 110 °C. The observed decay, which is due to orientational relaxation of the nonlinear optical dyes in the films, is discussed in terms of several proposed models. The introduction of a continuously varying relaxation time, which occurs when considering phys. aging during the stability tests, is observed to account for orientational relaxation over a long time period.
IT **159633-59-7 159633-60-0**
RL: PRP (Properties)
(orientational relaxation in crosslinked nonlinear optical azobenzimidazole-containing polymers)
RN 159633-59-7 CAPLUS
CN Ethanol, 2-[[4-[[4-[1-(2-aminoethyl)-5-nitro-1H-benzimidazol-2-yl]phenyl]azo]phenyl]ethylamino]-, polymer with Tolonate HDT (9CI) (CA INDEX NAME)

CM 1

CRN 159633-55-3
CMF C25 H27 N7 O3



CM 2

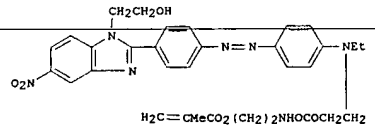
CRN 118550-50-8
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 159633-60-0 CAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(6-isocyanatohexyl)-, polymer with 2-[[4-[[4-[1-(2-aminoethyl)-5-nitro-1H-benzimidazol-2-yl]phenyl]azo]phenyl]ethylamino]ethanol (9CI) (CA INDEX NAME)

L4 ANSWER 91 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 15 Dec 1994
ACCESSION NUMBER: 1995:246557 CAPLUS
DOCUMENT NUMBER: 122:134163
TITLE: Benzimidazole-derivatized azo compounds and polymers derived therefrom for nonlinear optics
INVENTOR(S): Cross, Elisa M.; Francis, Cecil V.
PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Co., USA
SOURCE: U.S., 11 pp
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5321084	A	19940614	US 1993-89936	19930712
CA 2164508	AA	19950126	CA 1994-2164508	19940421
WO 9502581	A1	19950126	WO 1994-US4358	19940421
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 708757	A1	19960501	EP 1994-915401	19940421
R: DE, FR, GB, IT, NL				
JP 09500159	T2	19970107	JP 1994-504526	19940421
PRIORITY APPLN. INFO.:			US 1993-89936 A	19930712
			WO 1994-US4358 W	19940421

OTHER SOURCE(S): MARPAT 122:134163
GI

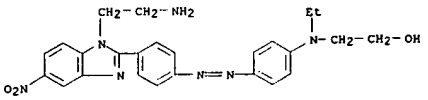


AB Second order nonlinear optically-active azo monomer containing a benzimidazole group are manufactured and polymerized to prepare linear and crosslinked polymers having a large μβ product and good solubility, which operate for long periods of time at -40 to 80° without significant relaxation. Thus, reaction of 2-(N-ethylanilino)ethanol with 2-isocyanatoethyl methacrylate, and coupling of the product with diazotized 1-(2-hydroxyethyl)-2-(4-aminophenyl)-5-nitrobenzimidazole gave a monomer I, which was free-radically polymerized to give a polymer with weight- and number-average mol. weight 354,000, and 54,645, resp., and glass temperature 138°.
IT **159633-59-7P 159633-60-0P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(benzimidazole-derivatized azo compds. and polymers derived therefrom for nonlinear optics)
RN 159633-59-7 CAPLUS
CN Ethanol, 2-[[4-[[4-[1-(2-aminoethyl)-5-nitro-1H-benzimidazol-2-yl]phenyl]azo]phenyl]ethylamino]-, polymer with Tolonate HDT (9CI) (CA INDEX NAME)

L4 ANSWER 91 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

CM 1

CRN 159633-55-3
CMF C25 H27 N7 O3



CM 2

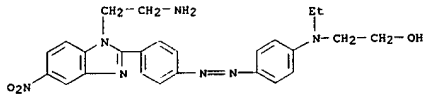
CRN 118550-50-8
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 159633-60-0 CAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(6-isocyanatohexyl)-, polymer with 2-[[4-[[4-[1-(2-aminoethyl)-5-nitro-1H-benzimidazol-2-yl]phenyl]azo]phenyl]ethylamino]ethanol (9CI) (CA INDEX NAME)

CM 1

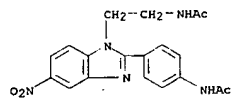
CRN 159633-55-3
CMF C25 H27 N7 O3



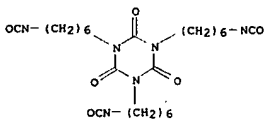
CM 2

CRN 3779-63-3
CMF C24 H36 N6 O6

L4 ANSWER 91 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

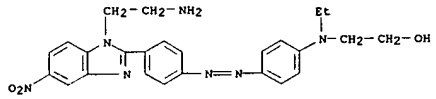


L4 ANSWER 91 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



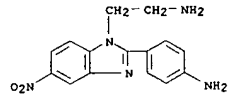
IT 159633-55-3P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(benzimidazole-derivatized azo compds. and polymers derived therefrom for nonlinear optics)

RN 159633-55-3 CAPLUS
CN Ethanol, 2-[[4-[[4-[1-(2-aminoethyl)-5-nitro-1H-benzimidazol-2-yl]phenyl]azo]phenyl]ethylamino]- (9CI) (CA INDEX NAME)



IT 159633-57-5P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(manufacture and coupling of diazotized)

RN 159633-57-5 CAPLUS
CN 1H-Benzimidazole-1-ethanamine, 2-(4-aminophenyl)-5-nitro- (9CI) (CA INDEX NAME)



IT 159633-56-4P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(manufacture and hydrolysis of)

RN 159633-56-4 CAPLUS
CN Acetamide, N-[4-[1-[2-(acetylamino)ethyl]-5-nitro-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 92 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 15 Oct 1994
ACCESSION NUMBER: 1994:579485 CAPLUS
DOCUMENT NUMBER: 121:179485
TITLE: Preparation of labeled fibrinogen receptor antagonists.
INVENTOR(S): Weisenberger, Johannes; Schubert, Hans Dieter; Switek, Karl Heinz; Linz, Guenter; Himmelsbach, Frank
PATENT ASSIGNEE(S): Thomae, Dr. Karl, G.m.b.H., Germany
SOURCE: Eur. Pat. Appl., 19 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 567967	A1	19931103	EP 1993-106725	19930426
EP 567967	B1	19960710		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
DE 4214245	A1	19931104	DE 1992-4214245	19920430
AT 140225	E	19960715	AT 1993-106725	19930426
ES 2092170	T3	19961116	ES 1993-106725	19930426
CA 2094963	AA	19931029	CA 1993-2094963	19930427
NO 9301528	A	19931029	NO 1993-1528	19930427
NO 180046	B	19961028		
NO 180046	C	19970205		
AU 9337153	A1	19931104	AU 1993-37153	19930427
AU 670778	B2	19960801		
JP 06050977	A2	19940225	JP 1993-100789	19930427
US 5677466	A	19971014	US 1995-477667	19950523
PRIORITY APPLN. INFO.:			DE 1992-4213930 A	19920428
			DE 1992-4214245 A	19920430
			US 1993-55176 B1	19930428

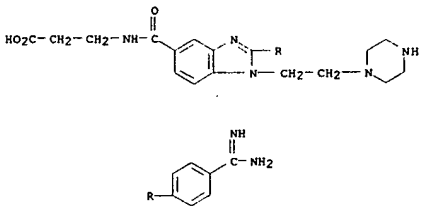
OTHER SOURCE(S): MARPAT 121:179485

AB Fibrinogen receptor antagonists having binding affinity ≥ that of 125I-fibrinogen, having in the presence of foreign protein an affinity (Kp) of < 500 nM with respect to the receptor, and having ≥ 1 detectable atom, were prepared Thus, (3S,5S)-5-[(4'-amidino-3-bromo-4-biphenylyl)oxymethyl]-3-[(methoxycarbonyl)methyl]-2-pyrrolidinone hydrochloride (preparation given) in DMF was treated with tritium gas in the presence of Pd/C to give (3S,5S)-5-[(4'-amidino-3-tritio-4-biphenylyl)oxymethyl]-3-[(methoxycarbonyl)methyl]-2-pyrrolidinone hydrochloride of 98.8% radiochem. purity. This was saponified with aqueous NaOH/MeOH to give (3S,5S)-5-[(4'-amidino-3-tritio-4-biphenylyl)oxymethyl]-3-(carboxymethyl)-2-pyrrolidinone (3H-BIBU 52). A curve showing displacement of 3H-BIBU 52 by unlabeled BIBU 52 from human thrombocytes in the presence of plasma is given.

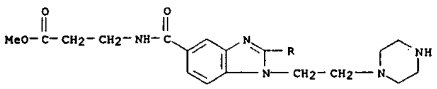
IT 157446-29-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as fibrinogen receptor antagonist)

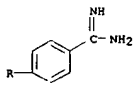
RN 157446-29-2 CAPLUS
CN β-Alanine, N-[[2-[4-(aminoiminomethyl)phenyl]-1-[2-(1-piperazinyl)ethyl]-1H-benzimidazol-5-yl]carbonyl]-, labeled with tritium (9CI) (CA INDEX NAME)

L4 ANSWER 92 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



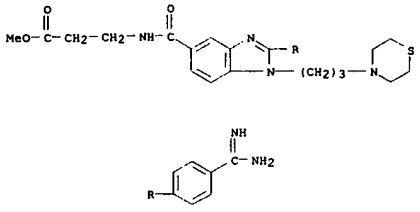
IT **157578-10-4P 157578-11-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as intermediate for labeled fibrinogen receptor antagonist)
RN 157578-10-4 CAPLUS
CN β-Alanine, N-{[2-[4-(aminoiminomethyl)phenyl]-1-[2-(1-piperazinyl)ethyl]-1H-benzimidazol-5-yl]carbonyl}-, methyl ester (9CI) (CA INDEX NAME)





RN 157578-11-5 CAPLUS
CN β-Alanine, N-{[2-[4-(aminoiminomethyl)phenyl]-1-[3-(4-thiomorpholinyl)propyl]-1H-benzimidazol-5-yl]carbonyl}-, methyl ester (9CI) (CA INDEX NAME)

L4 ANSWER 92 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

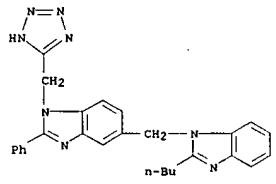


L4 ANSWER 93 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 19 Mar 1994
ACCESSION NUMBER: 1994:134533 CAPLUS
DOCUMENT NUMBER: 120:134533
TITLE: Substituted benzimidazolyl derivatives, therapeutic agents containing them and process for their preparation
INVENTOR(S): Hauel, Norbert; Ries, Uwe; Narr, Berthold; Van Meel, Jacques; Wienen, Wolfgang; Entzeroth, Michael
PATENT ASSIGNEE(S): Thomae, Dr. Karl, G.m.b.H., Germany
SOURCE: Eur. Pat. Appl., 31 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

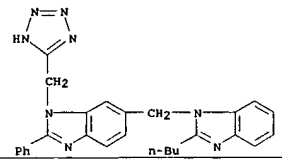
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 560330	A2	19930915	EP 1993-103854	19930310
EP 560330	A3	19940427		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
DE 4207904	A1	19930916	DE 1992-4207904	19920312
CA 2091415	AA	19930913	CA 1993-2091415	19930310
JP 06049038	A2	19940222	JP 1993-49766	19930311
US 5459147	A	19951017	US 1994-237710	19940503
PRIORITY APPLN. INFO.:			DE 1992-4207904 A	19920312
			US 1993-25303 B1	19930302

OTHER SOURCE(S): MARPAT 120:134533
GI

L4 ANSWER 93 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



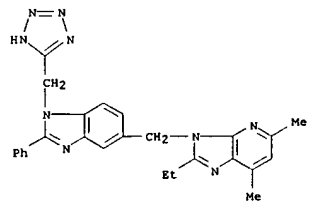
RN 152893-33-9 CAPLUS
CN 1H-Benzimidazole, 6-{(2-butyl-1H-benzimidazol-1-yl)methyl}-2-phenyl-1-(1H-tetrazol-5-ylmethyl)- (9CI) (CA INDEX NAME)



* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

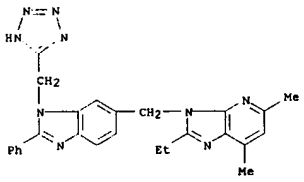
AB The title compds., {(benzimidazolyl)methyl]benzimidazoles I (R = alkyl, cycloalkyl, etc.; R1 = carboxy, cyano, tetrazolyl, etc.; R2 = alkyl, cycloalkyl, etc.) and their uses for the preparation of angiotensin II antagonist-containing pharmaceuticals are claimed. For example, 1-[(hydroxycarbonyl)methyl]-2-phenyl-5-{(2-ethyl-4,6-dimethylimidazo[4,5-b]pyridin-1-yl)methyl]benzimidazole (II) was prepared by saponification of the corresponding ester. Also prepared was 1-[(hydroxycarbonyl)methyl]-2-phenyl-6-[[(2-propyl-4-methyl-6-(1-methyl-2-benzimidazolyl)-1-benzimidazolyl]methyl]benzimidazole (III).
IT **152893-32-8 152893-33-9 152893-40-8**
152893-41-9 152893-43-1 152893-45-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation as angiotensin II antagonist)
RN 152893-32-8 CAPLUS
CN 1H-Benzimidazole, 5-{(2-butyl-1H-benzimidazol-1-yl)methyl}-2-phenyl-1-(1H-tetrazol-5-ylmethyl)- (9CI) (CA INDEX NAME)

RN 152893-40-8 CAPLUS
CN 3H-Imidazo[4,5-b]pyridine, 2-ethyl-5,7-dimethyl-3-[[2-phenyl-1-(1H-tetrazol-5-ylmethyl)-1H-benzimidazol-5-yl]methyl]- (9CI) (CA INDEX NAME)

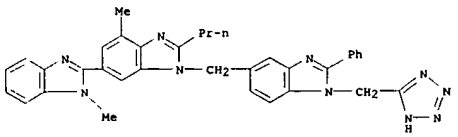


RN 152893-41-9 CAPLUS
CN 3H-Imidazo[4,5-b]pyridine, 2-ethyl-5,7-dimethyl-3-[[2-phenyl-1-(1H-tetrazol-5-ylmethyl)-1H-benzimidazol-6-yl]methyl]- (9CI) (CA INDEX NAME)

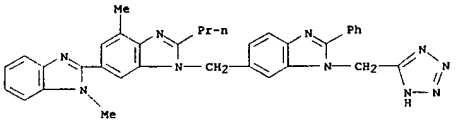
L4 ANSWER 93 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 152893-43-1 CAPLUS
CN 2,6'-Bi-1H-benzimidazole, 1,4'-dimethyl-1'-[[2-phenyl-1-(1H-tetrazol-5-ylmethyl)-1H-benzimidazol-5-yl]methyl]-2'-propyl- (9CI) (CA INDEX NAME)

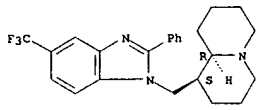


RN 152893-45-3 CAPLUS
CN 2,6'-Bi-1H-benzimidazole, 1,4'-dimethyl-1'-[[2-phenyl-1-(1H-tetrazol-5-ylmethyl)-1H-benzimidazol-6-yl]methyl]-2'-propyl- (9CI) (CA INDEX NAME)



L4 ANSWER 94 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 11 Jan 1992
ACCESSION NUMBER: 1992:186 CAPLUS
DOCUMENT NUMBER: 116:186
TITLE: Preparation and pharmacological activity of some 1-lupinylbenzimidazoles and 1-lupinylbenzotriazoles
AUTHOR(S): Boido, Alessandro; Vazzana, Iana; Sparatore, Fabio; Cenicola, Maria Luigia; Donnoli, Donato; Marmo, Emilio
CORPORATE SOURCE: Ist. Sci. Farm., Univ. Genova, Genoa, 16132, Italy
SOURCE: Farmaco (1991), 46(6), 775-88
CODEN: FRMCE8; ISSN: 0014-827X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Twelve new 1-lupinylbenzimidazole and 1-lupinylbenzotriazole derivs. were prepared and, together with some previously described analogs, were tested for analgesic (hot-plate test), anti-inflammatory (against carrageenan edema), diuretic, and antihypertensive (in spontaneously hypertensive rats) activities. Several compds. exhibited a good degree of activity in one or in more than one areas.
IT **137739-78-7P 137739-79-8P 137756-17-3P**
137756-18-4P
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(preparation and pharmacol. of, structure in relation to)
RN 137739-78-7 CAPLUS
CN 2H-Quinolizine, octahydro-1-[[2-phenyl-5-(trifluoromethyl)-1H-benzimidazol-1-yl]methyl]-, (1S-trans)- (9CI) (CA INDEX NAME)

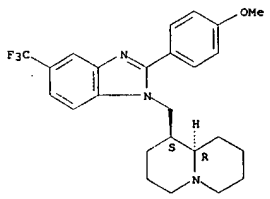
Absolute stereochemistry.



RN 137739-79-8 CAPLUS
CN 2H-Quinolizine, octahydro-1-[[2-(4-methoxyphenyl)-5-(trifluoromethyl)-1H-benzimidazol-1-yl]methyl]-, (1S-trans)- (9CI) (CA INDEX NAME)

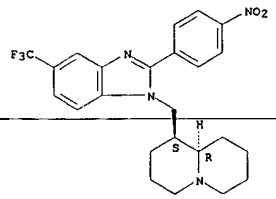
Absolute stereochemistry.

L4 ANSWER 94 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



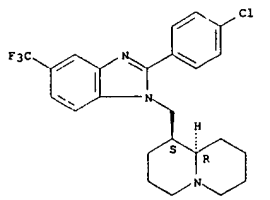
RN 137756-17-3 CAPLUS
CN 2H-Quinolizine, octahydro-1-[[2-(4-nitrophenyl)-5-(trifluoromethyl)-1H-benzimidazol-1-yl]methyl]-, (1S-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



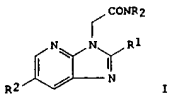
RN 137756-18-4 CAPLUS
CN 2H-Quinolizine, 1-[[2-(4-chlorophenyl)-5-(trifluoromethyl)-1H-benzimidazol-1-yl]methyl]octahydro-, (1S-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 94 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

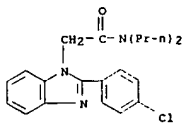
L4 ANSWER 95 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 01 Nov 1991
ACCESSION NUMBER: 1991:583176 CAPLUS
DOCUMENT NUMBER: 115:183176
TITLE: 2-Phenyl-3H-imidazo[4,5-b]pyridine-3-acetamides as nonbenzodiazepine anticonvulsants and anxiolytics
AUTHOR(S): Tomczuk, Bruce E.; Taylor, C. R., Jr.; Moses, L. Meredith; Sutherland, Deborah B.; Lo, Young S.; Johnson, David N.; Kinnier, William B.; Kilpatrick, Brian F.
CORPORATE SOURCE: Dep. Chem. Res., A. H. Robbins Co., Richmond, VA, 23261-6609, USA
SOURCE: Journal of Medicinal Chemistry (1991), 34(10), 2993-3006
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 115:183176
GI



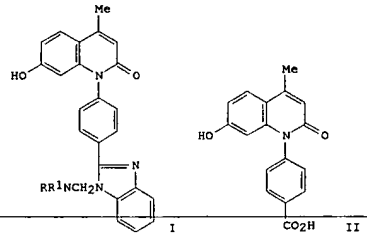
I

AB A series of 2-phenyl-3H-imidazo[4,5-b]pyridine-3-acetamides e.g. I [R = H, R1 = 4-ClC6H4, R2 = H (II); R = Me, R1 = 4-MeC6H4, R2 = Cl (III)] were designed and synthesized as nonbenzodiazepine anxiolytics based on a mol. disconnection of a typical 1,4-benzodiazepine (BZD). A number of these compds. showed submicromolar potency in a [3H]benzodiazepine binding assay in vitro and good potency in protecting rodents against pentylenetetrazole-induced seizures. II appears to be a selective anticonvulsant (pentylenetetrazole) agent when tested against a profile of chemical and elec. induced seizures in mice. In addition, III appears to be a selective anxiolytic/hypnotic agent on the basis of biochem. and pharmacol. characterization. It appears to be a full BZD agonist as assessed by GABA shift ratio and to be effective in punishment and nonpunishment animal models of anxiety. In addition, it shows a lower side-effect profile than diazepam as assessed by rotored neurotoxicity and potentiation of ethanol-induced sleep time in mice. The chemical and structure-activity relationships of this series is discussed.
IT 135429-04-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and anticonvulsant and anxiolytic activity of)
RN 135429-04-8 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-(4-chlorophenyl)-N,N-dipropyl- (9CI) (CA INDEX NAME)

L4 ANSWER 95 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L4 ANSWER 96 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 19 Apr 1991
ACCESSION NUMBER: 1991:143242 CAPLUS
DOCUMENT NUMBER: 114:143242
TITLE: Synthesis and antiviral activity of Mannich bases of 2-[(2-oxo-4-methyl-7-hydroxyquinolinyl)-1-(4-aryl)]benzimidazole
AUTHOR(S): Srivastava, Archana Jyoti; Saxena, V. K.; Chowdhury, B. L.
CORPORATE SOURCE: Chem. Dep., Lucknow Univ., Lucknow, 226 007, India
SOURCE: Indian Drugs (1990), 28(2), 75-7
CODEN: INDRBA; ISSN: 0019-462X
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

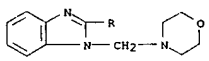


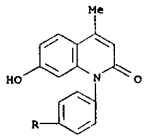
I

II

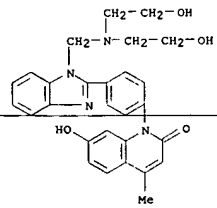
AB Title compds. I (R = CH2CH2OH, Et, Me, Ph, R1 = CH2CH2OH, Ph, Et; RR1N = morpholino, piperidino) were prepared by reacting o-phenylenediamine with quinolinylbenzoic acid II followed by a Mannich reaction with RR1NH and aqueous HCHO. I were tested against Ranikhet Disease Virus and only I (R = Me, R1 = Ph) had virucidal activity.
IT 132765-61-8P 132765-62-9P 132765-63-0P 132765-64-1P 132765-65-2P 132765-66-3P 132765-67-4P 132765-68-5P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and virucidal activity of)
RN 132765-61-8 CAPLUS
CN 2(1H)-Quinolinone, 7-hydroxy-4-methyl-1-[4-[1-(4-morpholinylmethyl)-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 96 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

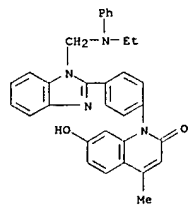




RN 132765-62-9 CAPLUS
CN 2(1H)-Quinolinone, 1-[4-[1-[[bis(2-hydroxyethyl)amino]methyl]-1H-benzimidazol-2-yl]phenyl]-7-hydroxy-4-methyl- (9CI) (CA INDEX NAME)

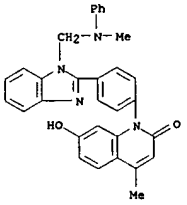


RN 132765-63-0 CAPLUS
CN 2(1H)-Quinolinone, 1-[4-[1-[(ethylphenylamino)methyl]-1H-benzimidazol-2-yl]phenyl]-7-hydroxy-4-methyl- (9CI) (CA INDEX NAME)

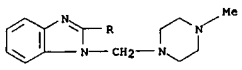


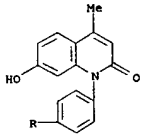
RN 132765-64-1 CAPLUS

L4 ANSWER 96 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CN 2(1H)-Quinolinone, 7-hydroxy-4-methyl-1-[4-[1-[(methylphenylamino)methyl]-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)



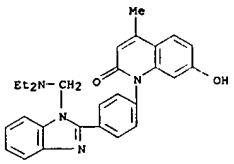
RN 132765-65-2 CAPLUS
CN 2(1H)-Quinolinone, 7-hydroxy-4-methyl-1-[4-[1-[(4-methyl-1-piperazinyl)methyl]-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)



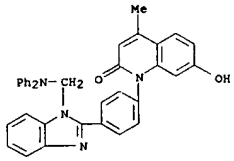


RN 132765-66-3 CAPLUS
CN 2(1H)-Quinolinone, 1-[4-[1-[(diethylamino)methyl]-1H-benzimidazol-2-yl]phenyl]-7-hydroxy-4-methyl- (9CI) (CA INDEX NAME)

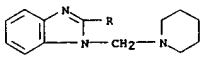
L4 ANSWER 96 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

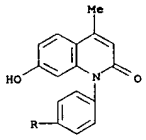


RN 132765-67-4 CAPLUS
CN 2(1H)-Quinolinone, 1-[4-[1-[(diphenylamino)methyl]-1H-benzimidazol-2-yl]phenyl]-7-hydroxy-4-methyl- (9CI) (CA INDEX NAME)



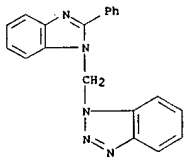
RN 132765-68-5 CAPLUS
CN 2(1H)-Quinolinone, 7-hydroxy-4-methyl-1-[4-[1-(1-piperidinylmethyl)-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)

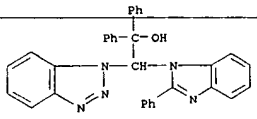




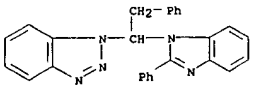
L4 ANSWER 97 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 21 Jan 1990
ACCESSION NUMBER: 1990:20944 CAPLUS
DOCUMENT NUMBER: 112:20944
TITLE: Chemistry of benzotriazole. Preparation, lithiation and transformation of N-(benzotriazol-1-ylmethyl) heterocycles
AUTHOR(S): Katritzky, Alan R.; Drewniak-Deyrup, Malgorzata; Lan, Xiangfu; Brunner, Frederic
CORPORATE SOURCE: Dep. Chem., Univ. Florida, Gainesville, FL, 32611, USA
SOURCE: Journal of Heterocyclic Chemistry (1989), 26(3), 629-36
CODEN: JHTCAD; ISSN: 0022-152X
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 112:20944
AB Indole, carbazole, pyrrole, imidazole, benzimidazole, 2-methyl- and 2-phenylbenzimidazole, and 1,2,4-triazole have each been converted into their N-(benzotriazol-1-ylmethyl) derivs. The pyrrole, indole, and carbazole adducts undergo smooth lithiation at the inter-ring methylene group and subsequent reaction with electrophiles. For the imidazole, benzimidazole, and triazole systems, lithiations at other mol. positions competed.
IT **124337-66-2P 124375-76-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 124337-66-2 CAPLUS
CN 1H-Benzotriazole-1-ethanol, α,α-diphenyl-β-(2-phenyl-1H-benzimidazol-1-yl)- (9CI) (CA INDEX NAME)

L4 ANSWER 97 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)





RN 124375-76-4 CAPLUS
CN 1H-Benzotriazole, 1-[2-phenyl-1-(2-phenyl-1H-benzimidazol-1-yl)ethyl]- (9CI) (CA INDEX NAME)



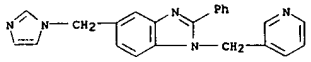
IT **124337-38-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation, lithiation, and reaction of, with benzoate)
RN 124337-38-8 CAPLUS
CN 1H-Benzotriazole, 1-[(2-phenyl-1H-benzimidazol-1-yl)methyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 98 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 02 Sep 1988
ACCESSION NUMBER: 1988:473437 CAPLUS
DOCUMENT NUMBER: 109:73437
TITLE: Preparation of (1H-imidazol-1-ylmethyl)benzimidazoles as inhibitors of androgen biosynthesis
INVENTOR(S): Raeymaekers, Alfons Herman M.; Freyne, Eddy Jean E.; Sanz, Gerard Charles
PATENT ASSIGNEE(S): Janssen Pharmaceutica N. V., Belg.
SOURCE: Eur. Pat. Appl., 59 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

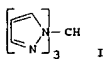
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 260744	A2	19880323	EP 1987-201702	19870909
EP 260744	A3	19890118		
EP 260744	B1	19921216		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
US 4859684	A	19890822	US 1987-78435	19870727
AT 83478	E	19930115	AT 1987-201702	19870909
ES 2053524	T3	19940801	ES 1987-201702	19870909
DK 8704794	A	19880316	DK 1987-4794	19870914
DK 174728	B1	20031006		
FI 8703977	A	19880316	FI 1987-3977	19870914
FI 87781	B	19921113		
FI 87781	C	19930225		
NO 8703840	A	19880316	NO 1987-3840	19870914
NO 167202	B	19910708		
NO 167202	C	19911016		
AU 8778385	A1	19880414	AU 1987-78385	19870914
AU 595064	B2	19900322		
HU 45051	A2	19880530	HU 1987-4071	19870914
HU 198039	B	19890728		
JP 01085975	A2	19890330	JP 1987-228679	19870914
JP 05087071	B4	19931215		
ZA 8706881	A	19890426	ZA 1987-6881	19870914
SU 1662350	A3	19910707	SU 1987-4203300	19870914
IL 83892	A1	19911121	IL 1987-83892	19870914
CA 1323366	A1	19931019	CA 1987-546763	19870914
CN 87106423	A	19880420	CN 1987-106423	19870915
CN 1020903	B	19930526		
PRIORITY APPLN. INFO.:			US 1986-907903 A	19860915
			EP 1987-201702 A	19870909

OTHER SOURCE(S): CASREACT 109:73437; MARPAT 109:73437
GI For diagram(s), see printed CA Issue.
AB The title compds. [I; A = N:CR2, NR3C(:X); R = H, C1-10 alkyl, R4, R4Z; R1 = H, C1-10 alkyl, C3-7 cycloalkyl(alkyl), C1-10 alkoxy, OH, C3-6 alkenyloxy, C3-6 alkynyloxy, R4, R4O, R4Z, R4Z1, R5Z2, R6Z3; R2 = H, C3-7 cycloalkyl, halo, CO2H, alkoxycarbonyl, (hetero)aroyl, alkanoyl, quinolinyl, indolinyl, R4, R4Z, R4CH(OH), R5Z2, (un)substituted alkyl, alkenyl, PhO; R3 = H, C1-6 alkyl, R6Z; R4 = (amino)pyridinyl, imidazolyl, thiazolyl, (halo)thienyl, (halo)furanyl, (un)substituted Ph; R5 = R4, R6; R6 = (un)substituted Ph; Z = C1-6 alkylene; Z1 = alkenyleneoxy, alkynyleneoxy; Z2 = alkyleneoxy; Z3 = alkynyleneoxy] and their stereoisomers and pharmaceutically acceptable salts were prepared, useful in

L4 ANSWER 98 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
treatment of androgenic hormone-dependent disorders in mammals. 4-[1-(1H-Imidazol-1-yl)propyl]-1,2-benzenediamine (prepn. given) and F3CCO2H were stirred 15 min. at 80° to give 22% (imidazolylpropyl)benzimidazole II. In rats II reduced plasma testosterone levels with an ED50 of <2.5 mg/kg orally.
IT 115575-92-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as androgen inhibitor)
RN 115575-92-3 CAPLUS
CN 1H-Benzimidazole, 5-(1H-imidazol-1-ylmethyl)-2-phenyl-1-(3-pyridinylmethyl)- (9CI) (CA INDEX NAME)

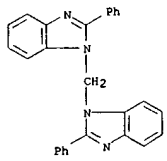


L4 ANSWER 99 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 09 Feb 1985
ACCESSION NUMBER: 1985:45842 CAPLUS
DOCUMENT NUMBER: 102:45842
TITLE: Improved synthesis of polyazolylmethanes under solid-liquid phase-transfer catalysis
AUTHOR(S): Julia, Sebastian; Del Mazo, Jose Maria; Avila, Luis; Elguero, Jose
CORPORATE SOURCE: Dep. Quim. Org., Inst. Quim. Sarria, Barcelona, Spain
SOURCE: Organic Preparations and Procedures International (1984), 16(5), 299-307
CODEN: OPPIAK; ISSN: 0030-4948
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



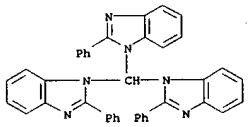
I

AB Di(azolyl)methanes, Tri(azolyl)methanes, and tetra(azolyl)methanes were prepared by treating the azole with H2CCl2, HCCl3, or CCl4 in presence of phase transfer catalysts. Thus, 24 mmol pyrazole was treated with 120 mmol K2CO3 and and 1.2 mmol Bu4N+HSO4- in refluxing HCCl3 (25 mL) overnight to give the tripyrazolylmethane I.
IT 94154-68-4P 94154-72-0P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and spectra of)
RN 94154-68-4 CAPLUS
CN 1H-Benzimidazole, 1,1'-methylenebis[2-phenyl- (9CI) (CA INDEX NAME)

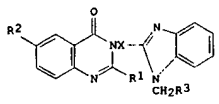


RN 94154-72-0 CAPLUS
CN 1H-Benzimidazole, 1,1',1''-methylidynetris[2-phenyl- (9CI) (CA INDEX NAME)

L4 ANSWER 99 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L4 ANSWER 100 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 18 Aug 1984
ACCESSION NUMBER: 1984:455025 CAPLUS
DOCUMENT NUMBER: 101:55025
TITLE: Possible anthelmintic compounds. Part-II: Mannich bases from 2-aryl/alkyl-3-(aryl/alkylbenzimidazolyl)quinazolin-4(3H)-ones
AUTHOR(S): Kulkarni, Y. D.; Kumar, Basant; Abdi, S. H. R.
CORPORATE SOURCE: Dep. Chem., Lucknow Univ., Lucknow, 226 007, India
SOURCE: Journal of the Indian Chemical Society (1983), 60(9), 906-7
CODEN: JICSAH; ISSN: 0019-4522
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 101:55025
GI



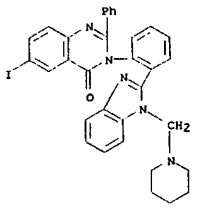
I

AB The title compds. I [R1 = Ph, o-O2NC6H4O, Me; R2 = iodo, Br, H; R3 = piperidino, morpholino, methylpiperidino, pyrrolidinyl, Me2N; X = o-phenylene, PhCH2CHCO2H (sic)], useful as anthelmintics, were prepared by Mannich reaction of I (CH2R3 = H) with the corresponding amines and CH2O. I (R1 = Ph, R2 = iodo, R3 = piperidino, X = o-C6H4) inhibited Helminthosporium nana 39% in rats (no dosage data).

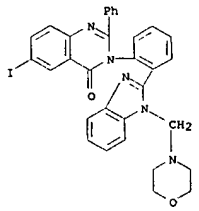
IT **91045-22-6P 91045-23-7P 91045-24-8P**
91045-25-9P 91045-26-0P 91045-27-1P
91045-28-2P 91045-29-3P 91045-30-6P
91045-31-7P 91045-32-8P 91045-35-1P
91045-36-2P 91045-37-3P 91045-38-4P
91045-39-5P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and anthelmintic activity of)

RN 91045-22-6 CAPLUS
CN 4(3H)-Quinazolinone, 6-iodo-2-phenyl-3-[2-[1-(1-piperidinylmethyl)-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 100 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

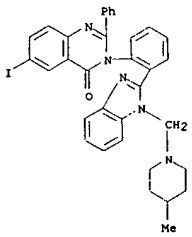


RN 91045-23-7 CAPLUS
CN 4(3H)-Quinazolinone, 6-iodo-3-[2-[1-(4-morpholinylmethyl)-1H-benzimidazol-2-yl]phenyl]-2-phenyl- (9CI) (CA INDEX NAME)

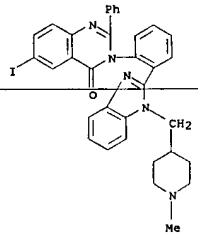


RN 91045-24-8 CAPLUS
CN 4(3H)-Quinazolinone, 6-iodo-3-[2-[1-[(4-methyl-1-piperidinyl)methyl]-1H-benzimidazol-2-yl]phenyl]-2-phenyl- (9CI) (CA INDEX NAME)

L4 ANSWER 100 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

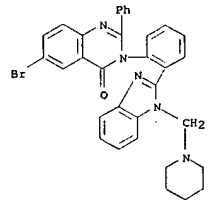


RN 91045-25-9 CAPLUS
CN 4(3H)-Quinazolinone, 6-iodo-3-[2-[1-[(1-methyl-4-piperidinyl)methyl]-1H-benzimidazol-2-yl]phenyl]-2-phenyl- (9CI) (CA INDEX NAME)

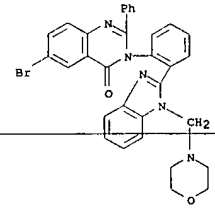


RN 91045-26-0 CAPLUS
CN 4(3H)-Quinazolinone, 6-bromo-2-phenyl-3-[2-[1-(1-piperidinylmethyl)-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)

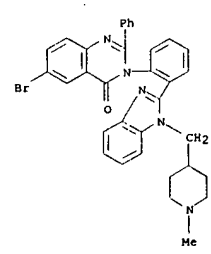
L4 ANSWER 100 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 91045-27-1 CAPLUS
CN 4(3H)-Quinazolinone, 6-bromo-3-[2-[1-(4-morpholinylmethyl)-1H-benzimidazol-2-yl]phenyl]-2-phenyl- (9CI) (CA INDEX NAME)

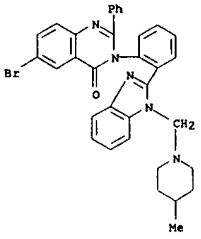


RN 91045-28-2 CAPLUS
CN 4(3H)-Quinazolinone, 6-bromo-3-[2-[1-[(1-methyl-4-piperidinyl)methyl]-1H-benzimidazol-2-yl]phenyl]-2-phenyl- (9CI) (CA INDEX NAME)

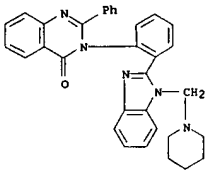


L4 ANSWER 100 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

RN 91045-29-3 CAPLUS
CN 4(3H)-Quinazolinone, 6-bromo-3-[2-[1-[(4-methyl-1-piperidinyl)methyl]-1H-benzimidazol-2-yl]phenyl]-2-phenyl- (9CI) (CA INDEX NAME)

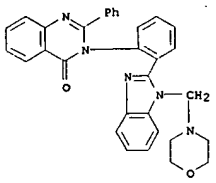


RN 91045-30-6 CAPLUS
CN 4(3H)-Quinazolinone, 2-phenyl-3-[2-(1-(1-piperidinylmethyl)-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)

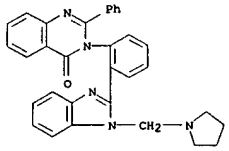


RN 91045-31-7 CAPLUS
CN 4(3H)-Quinazolinone, 3-[2-[1-(4-morpholinylmethyl)-1H-benzimidazol-2-yl]phenyl]-2-phenyl- (9CI) (CA INDEX NAME)

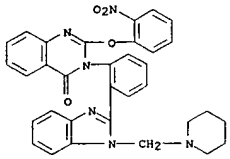
L4 ANSWER 100 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 91045-32-8 CAPLUS
CN 4(3H)-Quinazolinone, 2-phenyl-3-[2-[1-(1-pyrrolidinylmethyl)-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)

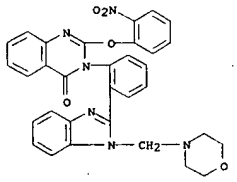


RN 91045-35-1 CAPLUS
CN 4(3H)-Quinazolinone, 2-(2-nitrophenoxy)-3-[2-[1-(1-piperidinylmethyl)-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)

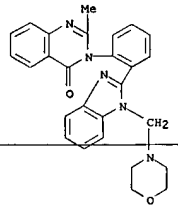


RN 91045-36-2 CAPLUS
CN 4(3H)-Quinazolinone, 3-[2-[1-(4-morpholinylmethyl)-1H-benzimidazol-2-yl]phenyl]-2-(2-nitrophenoxy)- (9CI) (CA INDEX NAME)

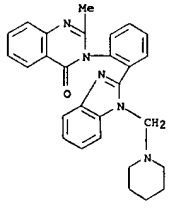
L4 ANSWER 100 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 91045-37-3 CAPLUS
CN 4(3H)-Quinazolinone, 2-methyl-3-[2-[1-(4-morpholinylmethyl)-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)

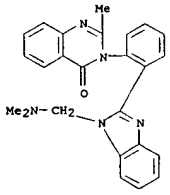


RN 91045-38-4 CAPLUS
CN 4(3H)-Quinazolinone, 2-methyl-3-[2-[1-(1-piperidinylmethyl)-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)

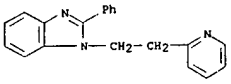


RN 91045-39-5 CAPLUS
CN 4(3H)-Quinazolinone, 3-[2-[1-[(dimethylamino)methyl]-1H-benzimidazol-2-yl]phenyl]-2-methyl- (9CI) (CA INDEX NAME)

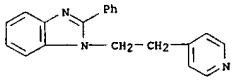
L4 ANSWER 100 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L4 ANSWER 101 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1982:52231 CAPLUS
DOCUMENT NUMBER: 96:52231
TITLE: Acidic properties of benzimidazoles and substituent effects. V. Protection of benzimidazoles by N-alkyl bond formation using vinylpyridines
AUTHOR(S): Ichikawa, Masataka; Yamamoto, Chiyuki; Hisano, Takuzo
CORPORATE SOURCE: Fac. Pharm. Sci., Kumamoto Univ., Kumamoto, 862, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1981), 29(10), 3042-7
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 96:52231
AB Vinylpyridines were utilized for protection of the benzimidazole N-H bond to give 1-(2-pyridyethyl)benzimidazoles. The reaction progressed smoothly when HOAc was used as a catalyst. In the alkylation of 5- or 7-substituted 2-arylbenzimidazoles with vinylpyridines, the yield decreased with increasing electron-attracting effect of the substituent groups. The removal of pyridylethyl groups by AlCl3 was used for decomposition of the intermediate AlCl3 adduct. The rate increased somewhat when electron-releasing substituent groups were present in the benzimidazole ring. 1-[2-(2-Pyridyl)ethyl]-2-arylbenzimidazoles were resistant to removal of their (2-pyridyl)ethyl groups. 4-Vinylpyridine can be used more efficiently as a protecting agent.
IT **80144-55-4P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and kinetics of dealkylation of)
RN 80144-55-4 CAPLUS
CN 1H-Benzimidazole, 2-phenyl-1-[2-(2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)

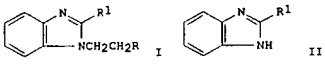


IT **80144-57-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 80144-57-6 CAPLUS
CN 1H-Benzimidazole, 2-phenyl-1-[2-(4-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)

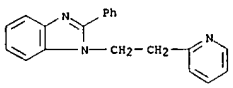


L4 ANSWER 101 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

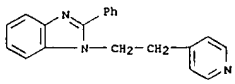
L4 ANSWER 102 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1982:6651 CAPLUS
DOCUMENT NUMBER: 96:6651
TITLE: Dealkylation of N-pyridylethyl-2-arylbenzimidazoles by aluminum chloride
AUTHOR(S): Ichikawa, Masataka; Yamamoto, Chiyuki; Hisano, Takuzo
CORPORATE SOURCE: Fac. Pharm. Sci., Kumamoto Univ., Kumamoto, 862, Japan
SOURCE: Organic Preparations and Procedures International (1981), 13(5), 353-6
CODEN: OPPIAK; ISSN: 0030-4948
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 96:6651
GI



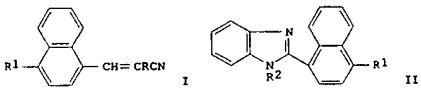
AB Dealkylation of I (R = 2- or 4-pyridyl, R1 = Ph, 2- or 4-pyridyl), prepared by alkylation of the corresponding benzimidazole with 2- or 4-vinylpyridine, with AlCl3 in CCl4 5 h at 150° gave II (R1 as above) in 30-40% yields when R = 2-pyridyl and 85-90% yields when R = 4-pyridyl.
IT **80144-55-4P 80144-57-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and dealkylation by aluminum chloride)
RN 80144-55-4 CAPLUS
CN 1H-Benzimidazole, 2-phenyl-1-[2-(2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)



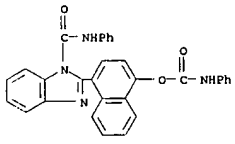
RN 80144-57-6 CAPLUS
CN 1H-Benzimidazole, 2-phenyl-1-[2-(4-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)



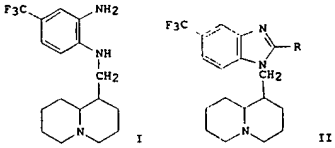
L4 ANSWER 103 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1980:639314 CAPLUS
DOCUMENT NUMBER: 93:239314
TITLE: Synthesis of some new naphthalene-carbamate and benzimidazole derivatives of potential pesticidal activity
AUTHOR(S): El-Bayouki, Khairy; Hammad, Mahmoud
CORPORATE SOURCE: Natl. Res. Cent., Cairo, Egypt
SOURCE: Egyptian Journal of Chemistry (1980), Volume Date 1977, 20(5), 529-36
CODEN: EGJCA3; ISSN: 0367-0422
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 93:239314
GI



AB The naphthalenes I (R = cyano, CO2Et, R1 = OH, O2CNHPh) were obtained in 68-86% yield by treating the naphthaldehydes with RCH2CN. I (R1 = O2CNHPh) were also obtained by treating I (R1 = OH) with PhNCO. II (R1 = OH, O2CNHPh, R2 = H) were obtained in 65% yield by condensing I with o-(H2N)2C6H4 and were treated with PhNCO to give II (R = O2CNHPh, R2 = CONHPh).
IT **75825-36-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 75825-36-4 CAPLUS
CN 1H-Benzimidazole-1-carboxamide, N-phenyl-2-[4-[[(phenylamino)carbonyl]oxy]-1-naphthalenyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 104 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1980:620657 CAPLUS
DOCUMENT NUMBER: 93:220657
TITLE: Benzimidazole derivatives with antiinflammatory activity
AUTHOR(S): Boido, A.; Vazzana, I.; Sparatore, F.
CORPORATE SOURCE: Ist. Policattedra Sci. Farm., Univ. Genova, Genoa, Italy
SOURCE: Studi Sassaresi, Sezione 2: Archivio Bimestrale di Scienze Mediche e Naturali (1979), 57(5-6), 801-10
CODEN: SSSEAK; ISSN: 0371-3172
DOCUMENT TYPE: Journal
LANGUAGE: Italian
GI



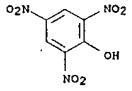
I II

AB The o-phenylenediamine derivative I reacted with acid chlorides and imidate esters to yield benzimidazoles II (R = 4-O2NC6H4CH2, Ph, 4-R1C6H4 (R1 = Cl, OMe, NO2), cyclopentylmethyl, 1-cyclopentenylmethyl, Pr, CHMe2, CF3], useful as antiinflammatory agents and sedatives (no data). A mixture of I, PhCOCl, and dioxane was refluxed 4 h to give II (R = Ph).
IT 75584-67-7P 75584-69-9P 75584-70-2P
75584-71-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 75584-67-7 CAPLUS
CN 2H-Quinolizine, octahydro-1-[[2-phenyl-5-(trifluoromethyl)-1H-benzimidazol-1-yl]methyl]-, compd. with 2,4,6-trinitrophenol (1:1) (9CI) (CA INDEX NAME)

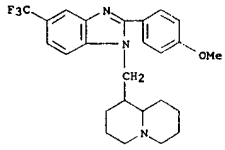
CM 1

CRN 75584-66-6
CMF C24 H26 F3 N3

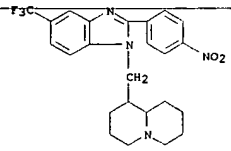
L4 ANSWER 104 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 75584-70-2 CAPLUS
CN 2H-Quinolizine, octahydro-1-[[2-(4-methoxyphenyl)-5-(trifluoromethyl)-1H-benzimidazol-1-yl]methyl]- (9CI) (CA INDEX NAME)

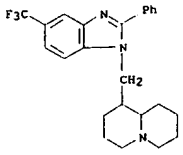


RN 75584-71-3 CAPLUS
CN 2H-Quinolizine, octahydro-1-[[2-(4-nitrophenyl)-5-(trifluoromethyl)-1H-benzimidazol-1-yl]methyl]-, dihydrochloride (9CI) (CA INDEX NAME)



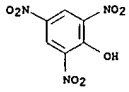
●2 HCl

L4 ANSWER 104 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

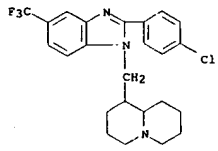
CRN 88-89-1
CMF C6 H3 N3 O7



RN 75584-69-9 CAPLUS
CN 2H-Quinolizine, 1-[[2-(4-chlorophenyl)-5-(trifluoromethyl)-1H-benzimidazol-1-yl]methyl]octahydro-, compd. with 2,4,6-trinitrophenol (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 75584-68-8
CMF C24 H25 Cl F3 N3



CM 2

CRN 88-89-1
CMF C6 H3 N3 O7

L4 ANSWER 105 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1980:514558 CAPLUS
DOCUMENT NUMBER: 93:114558
TITLE: N-Substituted heterocyclics
INVENTOR(S): Schromm, Kurt; Mentrup, Anton; Renth, Ernst Otto; Fuegner, Armin; Streller, Ilse
PATENT ASSIGNEE(S): Boehringer, C. H., Sohn, Fed. Rep. Ger.
SOURCE: Ger. Offen., 45 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2833140	A1	19800207	DE 1978-2833140	19780728
DE 2833140	C2	19910627		
EP 8653	A1	19800319	EP 1979-102580	19790721
EP 8653	B1	19820616		
EP 8653	B2	19880504		
R: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
AT 1193	E	19820715	AT 1979-102580	19790721
JP 55020783	A2	19800214	JP 1979-95547	19790726
JP 01044704	B4	19890929		
DK 7903176	A	19800129	DK 1979-3176	19790727
DK 155737	B	19890508		
DK 155737	C	19891030		
FI 7902356	A	19800129	FI 1979-2356	19790727
FI 75562	B	19880331		
FI 75562	C	19880711		
NO 7902485	A	19800129	NO 1979-2485	19790727
NO 151364	B	19841217		
NO 151364	C	19850327		
AU 7949303	A1	19800131	AU 1979-49303	19790727
AU 528003	B2	19830331		
ES 482888	A1	19800416	ES 1979-482888	19790727
ES 482897	A1	19800416	ES 1979-482897	19790727
ES 482898	A1	19800416	ES 1979-482898	19790727
ZA 7903861	A	19810325	ZA 1979-3861	19790727
CA 1132550	A1	19820928	CA 1979-332719	19790727
IL 57916	A1	19831031	IL 1979-57916	19790727
US 4378361	A	19830329	US 1981-285713	19810722
US 4581367	A	19860408	US 1982-443912	19821123
US 4647563	A	19870303	US 1985-806692	19851209

PRIORITY APPLN. INFO.:

DE 1978-2833140	A	19780728
EP 1979-102580	A	19790721
US 1979-60389	A1	19790725
US 1980-156928	A1	19800606
US 1981-285713	A3	19810722
US 1982-443912	A3	19821123

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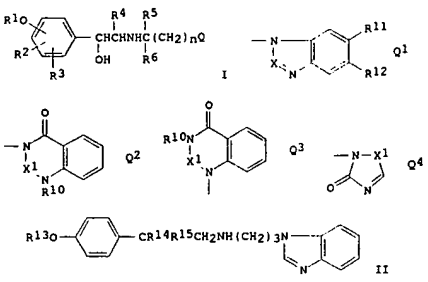
L4 ANSWER 105 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

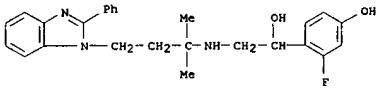


AB Ethanolamines I [R1 = H, acyl; R2 = H, R1O, NHSO2R7, NHCOR8, NHCONHR8, NHCH2C6H4R9, CH2OH, CH2SO2R7, CONHR8, halo, cyano; R3 = H, halo, R7, OR7; R2R3 = NHCOCH2O, NHC(O)O, NHCOCH:CH; R4 = H, Me, Et; R5, R6 independently = H, Me; R7 = C1-4 alkyl; R8 = H, C1-4 alkyl; R9 = H, C1-4 alkyl, C1-4 alkoxy, oxaalkoxy; R10 = H, C1-4 alkyl, Ph, pyridyl; R11, R12 independently = H, Me, Cl, OMe, R11R12 = OCH2O; Q = Q1, Q2, Q3, Q4; X = CR10, N; X1 = CH2, CO], their racemates, enantiomers, diastereoisomeric antipodal pairs, and their acid addition salts, useful as bronchodilators, spasmolytics, vasodilators, antihypertensives, and for treatment of allergy (no data), were prepared by 3 methods. Thus, 4-PhCH2OC6H4COCH2Br and 1-(aminopropyl)benzimidazole stirred 1 h in MeCN at 30-40° gave a precipitate of hydrobromide and mother liquor from which was isolated benzimidazole II (R13 = PhCH2, R14R15 = O) as the maleate. This was successively converted into the free base (NH4OH), reduced (NaBH4-EtOH), and hydrogenolyzed (over Pd/C in MeOH) to give 83% ethanolamine II (R13 = R14 = H, R15 = OH).

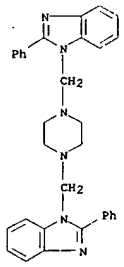
IT 73865-67-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 73865-67-5 CAPLUS

CN Benzenemethanol, α-[[[1,1-dimethyl-3-(2-phenyl-1H-benzimidazol-1-yl)propyl]amino]methyl]-2-fluoro-4-hydroxy- (9CI) (CA INDEX NAME)

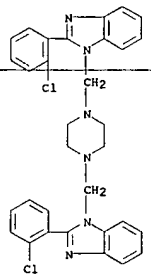


L4 ANSWER 106 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 73265-46-0 CAPLUS

CN 1H-Benzimidazole, 1,1'-[1,4-piperazinediylbis(methylene)]bis[2-(2-chlorophenyl)- (9CI) (CA INDEX NAME)



L4 ANSWER 106 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1980:146718 CAPLUS

DOCUMENT NUMBER: 92:146718

TITLE: Search for new anthelmintics: Part I. Synthesis of piperazine derivatives

AUTHOR(S): Tiwari, S. S.; Pandey, M. P.

CORPORATE SOURCE: Chem. Dep., Lucknow Univ., Lucknow, 226007, India

SOURCE: Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1979), 18B(4), 379-81
CODEN: IJSBDB; ISSN: 0376-4699

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 92:146718

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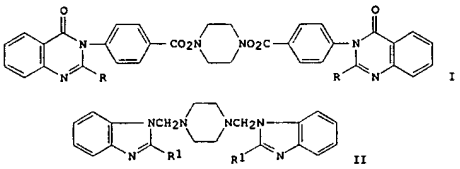


AB 1,4-Disubstituted piperazines I (R = optionally substituted Ph, PhCH:CH, 2-ClC6H4S, PhOCH2) and II (R1 = H, Me, Et, Ph, 2-ClC6H4) were prepared The compds. had amebicidal activity and some I also had anthelmintic activity.

IT 73265-45-9P 73265-46-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and amebicidal activity of)

RN 73265-45-9 CAPLUS

CN 1H-Benzimidazole, 1,1'-[1,4-piperazinediylbis(methylene)]bis[2-phenyl- (9CI) (CA INDEX NAME)

L4 ANSWER 107 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1979:492439 CAPLUS

DOCUMENT NUMBER: 91:92439

TITLE: Linear and crosslinked polybenzimidazoles

INVENTOR(S): Sheratte, Martin B.

PATENT ASSIGNEE(S): Acurex Corp., USA

SOURCE: U.S., 10 pp.
CODEN: USXXAM

DOCUMENT TYPE: Patent

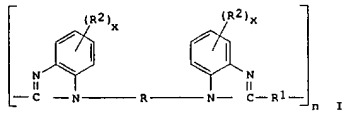
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4154919	A	19790515	US 1976-719264	19760831
PRIORITY APPLN. INFO.:			US 1976-719264 A	19760831

GI

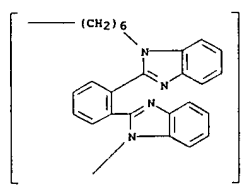


AB Polybenziomidazoles (I, R = arylene, alkylene, cycloalkylene, methylenediphenylene, sulfonyldiphenylene, carbonyldiphenylene, oxydiphenylene; R1 = arylene or cycloalkylene; R3 = lower alkyl, alkoxy, halo; x = 0-4), having good thermal properties, were prepared Thus, 0.01 mol 4,4'-bis(o-aminoanilino)biphenyl [40850-43-9] and 0.01 mol phthalic anhydride were mixed in 10 mL phenol and heated 4 h at 50° to give a foamed prepolymer [63100-69-6] having inherent viscosity 0.26 (0.5% in m-cresol). The prepolymer was further heated 1 h at 400° to give a tough polymer foam with inherent viscosity 0.79.

IT 71170-13-3P
RL: PREP (Preparation)
(preparation of heat-resistance)

RN 71170-13-3 CAPLUS

CN Poly(1H-benzimidazole-1,2-diyl-1,2-phenylene-1H-benzimidazole-2,1-diyl-1,6-hexanediyl) (9CI) (CA INDEX NAME)



L4 ANSWER 107 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

L4 ANSWER 108 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1979:7597 CAPLUS
DOCUMENT NUMBER: 90:7597
TITLE: Phenylbenzimidazolylfurans
INVENTOR(S): Meyer, Hans Rudolf; Weber, Kurt
PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.
SOURCE: Ger. Offen., 124 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2807008	A1	19780824	DE 1978-2807008	19780218
CH 619337	A3	19800930	CH 1977-16179	19771229
CH 619337	B	19810331		
US 4189589	A	19800219	US 1978-876587	19780210
NL 7801882	A	19780824	NL 1978-1882	19780220
CA 1111044	A1	19811020	CA 1978-297283	19780220
SU 1075988	A3	19840223	SU 1978-2581900	19780220
BE 864138	A1	19780821	BE 1978-185320	19780221
SE 7801991	A	19780823	SE 1978-1991	19780221
SE 444318	B	19860407		
SE 444318	C	19860717		
BR 7801032	A	19781219	BR 1978-1032	19780221
FR 2392989	A1	19781229	FR 1978-4948	19780221
FR 2392989	B1	19800613		
ES 467154	A1	19790116	ES 1978-467154	19780221
AU 7833479	A1	19790830	AU 1978-33479	19780221
AU 513775	B2	19801218		
DD 137939	C	19791003	DD 1978-203783	19780221
AT 356053	B	19800410	AT 1978-1244	19780221
GB 1574891	A	19800910	GB 1978-6886	19780221
JP 53105529	A2	19780913	JP 1978-18655	19780222
JP 01041161	B4	19890904		
US 4264325	A	19810428	US 1979-54043	19790702
CH 638805	A	19831014	CH 1980-2158	19800319

PRIORITY APPLN. INFO.:

LU 1977-76819	A	19770222
CH 1977-16179	A	19771229
US 1978-876587	A3	19780210

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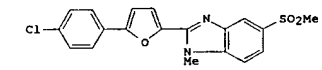
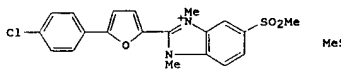


I



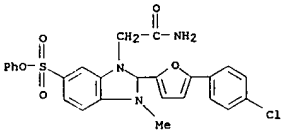
II

L4 ANSWER 108 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

AB Numerous 2-phenyl-5-(2-benzimidazolyl)furans and their quaternary derivs., e.g. I [68502-55-6] and II [68502-57-8], were prepared for use as fluorescent whiteners for cellulosic and synthetic fibers or plastics. The compds. were obtained by condensing 2-phenyl-5-furancarbonyl halides with o-phenylenediamines, or by cyclizing o-amino azomethines prepared by condensing 2-phenyl-5-furanaldehydes with o-phenylenediamines, and optionally quaternizing the products. Thus, condensation of 2-(4-chlorophenyl)-5-furanaldehyde [34035-03-5] with 2,4-MeNH(MeSO2)C6H3NH2 [68502-54-5] in refluxing EtOH, addition of PhNO2, distillation of the EtOH, and heating the mixture at reflux gave colorless crystalline I. Quaternization of I with Me2SO4 gave II, a flourescent whitener for acrylic, acid-modified polyester, and polyamide fibers and for paper.

IT **68504-03-0P 68528-30-3P**
RL: PREP (Preparation)
(manufacture of, as fluorescent brightener)

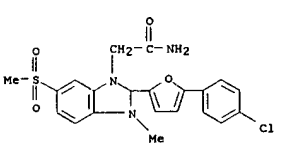
RN 68504-03-0 CAPLUS
CN 1H-Benzimidazolium, 3-(2-amino-2-oxoethyl)-2-[5-(4-chlorophenyl)-2-furanyl]-1-methyl-5-(phenoxysulfonyl)-, chloride (9CI) (CA INDEX NAME)



● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 68528-30-3 CAPLUS
CN 1H-Benzimidazolium, 3-(2-amino-2-oxoethyl)-2-[5-(4-chlorophenyl)-2-furanyl]-1-methyl-5-(methylsulfonyl)-, chloride (9CI) (CA INDEX NAME)



● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

L4 ANSWER 109 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN

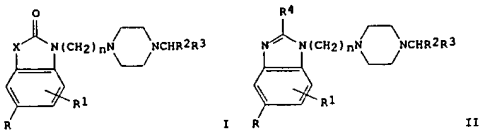
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1978:50920 CAPLUS
DOCUMENT NUMBER: 88:50920
TITLE: Piperazine and piperidine derivatives
INVENTOR(S): Vandenberk, Jan; Kennis, Ludo E. J.; Van der Aa, Marcel J. M. C.; Van Heertum, Albert H. M. T.
PATENT ASSIGNEE(S): Janssen Pharmaceutica N. V., Belg.
SOURCE: Ger. Offen., 94 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2714437	A1	19771020	DE 1977-2714437	19770331
DE 2714437	C2	19890511		
ES 456690	A1	19780716	ES 1977-456690	19770309
FR 2346350	A1	19771028	FR 1977-7106	19770310
FR 2346350	B1	19801017		
BE 852405	A2	19770914	BE 1977-175736	19770314
CA 1097646	A1	19810317	CA 1977-274240	19770318
CS 191337	P	19790629	CS 1977-1972	19770324
GB 1579365	A	19801119	GB 1977-12754	19770325
JP 52122380	A2	19771014	JP 1977-35560	19770331
JP 62031707	B4	19870709		
AU 7723824	A1	19781005	AU 1977-23824	19770331
AU 515173	B2	19810319		
IL 51797	A1	19810913	IL 1977-51797	19770331
DK 7701459	A	19771003	DK 1977-1459	19770401
DK 153477	B	19880718		
DK 153477	C	19881121		
FI 7701020	A	19771003	FI 1977-1020	19770401
FI 66178	B	19840531		
FI 66178	C	19840910		
SE 7703842	A	19771003	SE 1977-3842	19770401
SE 431333	B	19840130		
SE 431333	C	19840510		
NL 7703564	A	19771004	NL 1977-3564	19770401
NL 190522	B	19931101		
NL 190522	C	19940405		
NO 7701168	A	19771004	NO 1977-1168	19770401
NO 146774	B	19820830		
NO 146774	C	19821208		
ZA 7702000	A	19781129	ZA 1977-2000	19770401
SU 683621	D	19790830	SU 1977-2468056	19770401
AT 7702304	A	19791215	AT 1977-2304	19770401
AT 357541	B	19800710		
HU 21854	O	19820227	HU 1977-JA782	19770401
HU 179491	B	19821028		
CH 634317	A	19830131	CH 1977-4154	19770401
US 4200641	A	19800429	US 1978-875342	19780206
US 4250176	A	19810210	US 1979-49779	19790618
US 4377578	A	19830322	US 1981-286438	19810724
JP 61005068	A2	19860110	JP 1985-126384	19850612
JP 62030990	B4	19870706		

PRIORITY APPLN. INFO.:

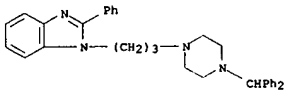
US 1976-672919	A	19760402
US 1976-753062	A	19761221
JP 1977-35560	A	19770331
US 1978-875342	A3	19780206
US 1979-88703	A1	19791026

L4 ANSWER 109 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
OTHER SOURCE(S): CASREACT 88:50920
GI

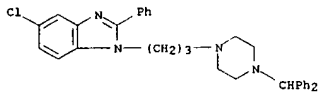


I II

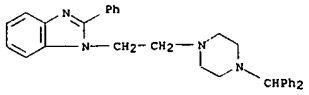
AB Piperazines I and II (X = NH, NCMe:CH2, NCH2CH2CO2Et, NCH2Ph, NAc, NCONHMe, NMe, NCH2OH, NPh, NCH2CO2H, O, S; R = H, Cl, CF3, Me; R1 = H, 6-Cl, 6-Me, 7-Cl; R2 = Ph, 4-FC6H4, 4-ClC6H4, 3-ClC3H4, 4-FC6H4, 2-ClC6H4; R3 = Ph, 4-FC6H4, 4-BrC6H4, 4-MeC6H4, 4-O2NC6H4, 2-pyridyl, 3-pyridyl, 2,5-Me2C6H3, 4-pyridyl; R4 = H, Et, SMe, Me, Ph, SH, cyclohexyl, CH2Ph, NHCO2Me, NH2, NHAc; n = 2-6) (more than 85 compds.) were prepared I (X = NH, R = R1 = H, R2 = R3 = Ph, n =3, III) was prepared by treating chloropropylbenzimidazolone with N-diphenylmethylpiperazine. III was antihistaminic in guinea pig ileum test at 0.005 mg/L.
IT **65215-49-8P 65215-50-1P 65215-51-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 65215-49-8 CAPLUS
CN 1H-Benzimidazole, 1-[3-[4-(diphenylmethyl)-1-piperazinyl]propyl]-2-phenyl- (9CI) (CA INDEX NAME)



RN 65215-50-1 CAPLUS
CN 1H-Benzimidazole, 5-chloro-1-[3-[4-(diphenylmethyl)-1-piperazinyl]propyl]-2-phenyl- (9CI) (CA INDEX NAME)

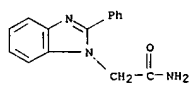


L4 ANSWER 109 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
RN 65215-51-2 CAPLUS
CN 1H-Benzimidazole, 1-[2-[4-(diphenylmethyl)-1-piperazinyl]ethyl]-2-phenyl-, trihydrochloride (9CI) (CA INDEX NAME)



●3 HCl

L4 ANSWER 110 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1975:140010 CAPLUS
DOCUMENT NUMBER: 82:140010
TITLE: Reactions of cyanomethylbenzimidazoles. I. Synthesis of 1- and 2-cyanomethylbenzimidazoles and some of their derivatives
AUTHOR(S): Sawlewicz, Jozef; Milczarska, Barbara
CORPORATE SOURCE: Inst. Technol. Drug Anal., Med. Acad., Gdansk, Pol.
SOURCE: Polish Journal of Pharmacology and Pharmacy (1974), 26(6), 639-46
CODEN: PJPPAA; ISSN: 0301-0244
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB Cyanomethylbenzimidazoles I (R,R1 = H, Me) were prepared by treating the o-phenylenediamines with NCCH2CO2Et. I were converted to their amidoximes and thioamides. II (R2 = H, Me, Et, Pr, Ph) were prepared by treating the benzimidazoles with ClCH2CN and were hydrolyzed to their amides and acids.
IT **54980-93-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 54980-93-7 CAPLUS
CN 1H-Benzimidazole-1-acetamide, 2-phenyl- (9CI) (CA INDEX NAME)

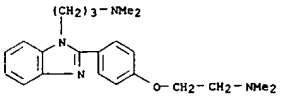


L4 ANSWER 111 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1971:476797 CAPLUS
DOCUMENT NUMBER: 75:76797
TITLE: Benzimidazole compounds
INVENTOR(S): Hasegawa, Gen; Maruyama, Hiroshi
PATENT ASSIGNEE(S): Yoshitomi Pharmaceutical Industries, Ltd.
SOURCE: Jpn. Tokkyo Koho, 4 pp.
CODEN: JAXXAD
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 46009581	B4	19710311	JP	19670908

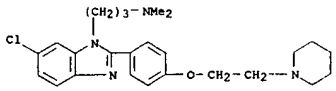
GI For diagram(s), see printed CA Issue.
AB I, useful as analgesics, antiinflammatants, excitants, etc. are manufactured Adduct of 4-(2-dimethylaminoethoxy)benzaldehyde with NaHSO3 (17 g) and 10 g 2-(3-dimethylaminopropylamino)aniline in 200 ml EtOH are refluxed 8 hr, the mixture poured over 300 ml H2O containing Na2SO3, extracted with CHCl3, and the extract treated with HCl to give 14.1 g I.3HCl [R1 = 3-dimethylaminopropyl, R2 = 4-(2-dimethylaminoethoxy), R3 = H], m. 139-43° (iso-PrOH). Similarly prepared are I (R1, R2, R3, and m.p. of the hydrochloride given): 3-dimethylaminopropyl, 4-(3-morpholinopropoxy), H, 141-8°; 3-dimethylamino propyl, 4-(2-piperidinoethoxy), Cl, 109-12°; 3-dimethylamino propyl, 3-(4-methyl-1-piperazinyl)propoxy, Cl, 233-6°; 3-dimethylaminopropyl, 4-(2-dimethylaminoethoxy), H, 139-43°; 3-dimethylaminopropyl, 4-(3-dimethylaminopropoxy), Cl, 175-7°; 3-dimethylaminopropyl, 4-(3-dimethylaminopropoxy), Cl, 175-7°; 3-dimethylaminopropyl, 4-(3-dimethylaminopropoxy), H, 130-2°; 3-dimethylaminopropyl, 4-NMe2, H, 201-3°; 3-dimethylaminopropyl, 4-(3-diethylaminopropoxy), H, 117-19°; 3-dimethylaminopropyl, 4-[2-(4-methyl-1-piperazinyl)ethoxy], H, 251-60°; 3-dimethylaminopropyl, 4-[2-(4-methyl-1-piperazinyl)propoxy], H, 214-16°; 3-dimethylaminopropyl, 4-(3-piperidinopropoxy), H, 112-15°; 3-dimethylaminopropyl, 4-[2-(4-methyl-1-piperazinyl)ethoxy], Cl, 95-101°; 4-dibutylaminobutyl, 2-(2-diethylaminoethoxy), H, 197-202°; 2-diethylaminoethyl, 2-(2-diethylaminoethoxy), H, 221-30°; 3-dimethylaminopropyl, 4-(3-morpholinopropoxy), OMe, 123-5°; 3-dimethylaminopropyl, 4-(3-dimethylaminopropoxy), OMe, 118-24°; 3-di-o-chlorophenylaminopropyl, 4-(3-piperidinopropoxy), H, 160-5°.
IT **33158-96-2P 33158-98-4P 33158-99-5P**
33159-00-1P 33159-01-2P 33159-02-3P
33159-03-4P 33159-04-5P 33159-05-6P
33159-06-7P 33159-07-8P 33159-08-9P
33159-09-0P 33159-10-3P 33159-11-4P
33159-12-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 33158-96-2 CAPLUS
CN Benzimidazole, 2-[p-[2-(dimethylamino)ethoxy]phenyl]-1-[3-(dimethylamino)propyl]-, trihydrochloride (8CI) (CA INDEX NAME)

L4 ANSWER 111 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



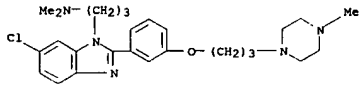
●3 HCl

RN 33158-98-4 CAPLUS
CN Benzimidazole, 6-chloro-1-[3-(dimethylamino)propyl]-2-[p-(2-piperidinoethoxy)phenyl]-, trihydrochloride (8CI) (CA INDEX NAME)



●3 HCl

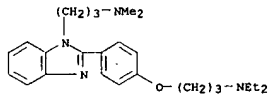
RN 33158-99-5 CAPLUS
CN Benzimidazole, 6-chloro-1-[3-(dimethylamino)propyl]-2-[m-[3-(4-methyl-1-piperazinyl)propoxy]phenyl]-, tetrahydrochloride (8CI) (CA INDEX NAME)



●4 HCl

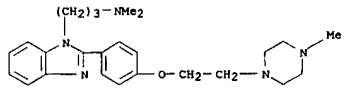
RN 33159-00-1 CAPLUS
CN Benzimidazole, 6-chloro-2-[p-[3-(dimethylamino)propoxy]phenyl]-1-[3-(dimethylamino)propyl]-, trihydrochloride (8CI) (CA INDEX NAME)

L4 ANSWER 111 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



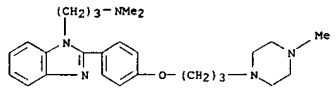
●3 HCl

RN 33159-04-5 CAPLUS
CN Benzimidazole, 1-[3-(dimethylamino)propyl]-2-[p-[2-(4-methyl-1-piperazinyl)ethoxy]phenyl]-, tetrahydrochloride (8CI) (CA INDEX NAME)



●4 HCl

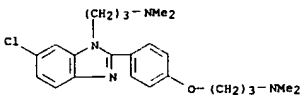
RN 33159-05-6 CAPLUS
CN Benzimidazole, 1-[3-(dimethylamino)propyl]-2-[p-[3-(4-methyl-1-piperazinyl)propoxy]phenyl]-, tetrahydrochloride (8CI) (CA INDEX NAME)



●4 HCl

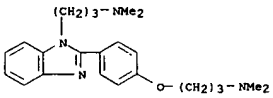
RN 33159-06-7 CAPLUS
CN Benzimidazole, 1-[3-(dimethylamino)propyl]-2-[p-(3-piperidinopropoxy)phenyl]-, trihydrochloride (8CI) (CA INDEX NAME)

L4 ANSWER 111 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



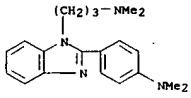
●3 HCl

RN 33159-01-2 CAPLUS
CN Benzimidazole, 2-[p-[3-(dimethylamino)propoxy]phenyl]-1-[3-(dimethylamino)propyl]-, trihydrochloride (8CI) (CA INDEX NAME)



●3 HCl

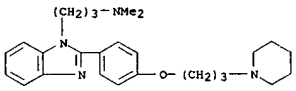
RN 33159-02-3 CAPLUS
CN Benzimidazole, 2-[p-(dimethylamino)phenyl]-1-[3-(dimethylamino)propyl]-, dihydrochloride (8CI) (CA INDEX NAME)



●2 HCl

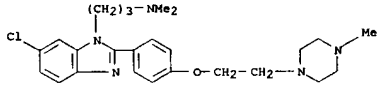
RN 33159-03-4 CAPLUS
CN Benzimidazole, 2-[p-[3-(diethylamino)propoxy]phenyl]-1-[3-(dimethylamino)propyl]-, trihydrochloride (8CI) (CA INDEX NAME)

L4 ANSWER 111 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



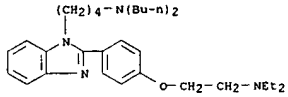
●3 HCl

RN 33159-07-8 CAPLUS
CN Benzimidazole, 6-chloro-1-[3-(dimethylamino)propyl]-2-[p-[2-(4-methyl-1-piperazinyl)ethoxy]phenyl]-, tetrahydrochloride (8CI) (CA INDEX NAME)



●4 HCl

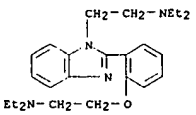
RN 33159-08-9 CAPLUS
CN Benzimidazole, 1-[4-(dibutylamino)butyl]-2-[p-[2-(diethylamino)ethoxy]phenyl]-, monohydrochloride (8CI) (CA INDEX NAME)



● HCl

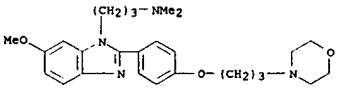
RN 33159-09-0 CAPLUS
CN Benzimidazole, 2-[o-[2-(diethylamino)ethoxy]phenyl]-1-[2-(diethylamino)ethyl]-, trihydrochloride (8CI) (CA INDEX NAME)

L4 ANSWER 111 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



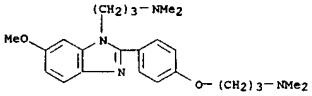
●3 HCl

RN 33159-10-3 CAPLUS
CN Benzimidazole, 1-[3-(dimethylamino)propyl]-6-methoxy-2-[p-(3-morpholinopropoxy)phenyl]-, monohydrochloride (8CI) (CA INDEX NAME)



● HCl

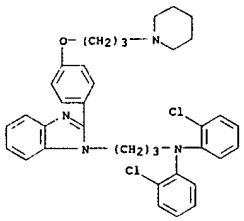
RN 33159-11-4 CAPLUS
CN Benzimidazole, 2-[p-[3-(dimethylamino)propoxy]phenyl]-1-[3-(dimethylamino)propyl]-6-methoxy-, trihydrochloride (8CI) (CA INDEX NAME)



●3 HCl

RN 33159-12-5 CAPLUS
CN Benzimidazole, 1-[3-[bis(o-chlorophenyl)amino]propyl]-2-[p-(3-piperidinopropoxy)phenyl]-, trihydrochloride (8CI) (CA INDEX NAME)

L4 ANSWER 111 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

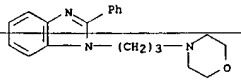


●3 HCl

L4 ANSWER 112 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1971:436031 CAPLUS
DOCUMENT NUMBER: 75:36031
TITLE: Benzimidazole compounds
INVENTOR(S): Hasegawa, Gen; Maruyama, Hiroshi
PATENT ASSIGNEE(S): Yoshitomi Pharmaceutical Industries, Ltd.
SOURCE: Jpn. Tokkyo Koho, 5 pp.
CODEN: JAXXAD
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 46009580	B4	19710311	JP	19670907

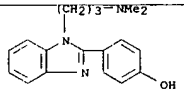
GI For diagram(s), see printed CA Issue.
AB I, useful as an analgesic, antiinflammatory, excitant, etc., is prepared In an example, an adduct of PhCHO with H2SO3 is refluxed with 2-[(3-morpholinopropyl)amino]aniline in iso-PrOH for 6 hr to give I.2HCl (R1 = 3-morpholinopropyl, R2 = R3 = H), m. 264-6° (iso-PrOH). Similarly prepared are 31 addnl. I.
IT **32926-95-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 32926-95-7 CAPLUS
CN Benzimidazole, 1-(3-morpholinopropyl)-2-phenyl- (8CI) (CA INDEX NAME)



L4 ANSWER 113 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1971:420403 CAPLUS
DOCUMENT NUMBER: 75:20403
TITLE: Benzimidazole derivatives
INVENTOR(S): Hasegawa, Hajime; Maruyama, Hiroshi
PATENT ASSIGNEE(S): Yoshitomi Pharmaceutical Industries, Ltd.
SOURCE: Jpn. Tokkyo Koho, 4 pp.
CODEN: JAXXAD
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 45039542	B4	19701212	JP	19670908

GI For diagram(s), see printed CA Issue.
AB The title compds. (I), with central inhibitory, excitation, analgesic, antiinflammatory, or vasodilation effects, are prepared by cyclocondensation of II and III. Thus, a mixture of p-HOC6H4CHO.NaHSO3, II (R = Me, R1 = H, A = C3H6), and MeOH was refluxed 6 hr to give I.2HCl.3.5H2O (R = Me, R1 = H, R2 = p-HO, A = C3H6), m. 185-7° (EtOH-H2O). Similarly prepared were 27 addnl. I.
IT **32584-02-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 32584-02-4 CAPLUS
CN Phenol, p-[1-[3-(dimethylamino)propyl]-2-benzimidazolyl]-, dihydrochloride (8CI) (CA INDEX NAME)

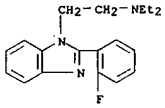


●2 HCl

L4 ANSWER 114 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1971:420398 CAPLUS
DOCUMENT NUMBER: 75:20398
TITLE: Antiinflammatory and analgesic 2-(o-fluorophenyl)benzimidazoles
INVENTOR(S): Rohrbach, Philippe; Karadavidoff, Isac
PATENT ASSIGNEE(S): Manufactures J.R. Bottu
SOURCE: Ger. Offen., 10 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2049377	A	19710422	DE 1970-2049377	19701008
FR 2068402	A5	19710827	FR 1969-34673	19691010
NL 7014662	A	19710414	NL 1970-14662	19701006
PRIORITY APPLN. INFO.:			FR 1969-34673 A	19691010

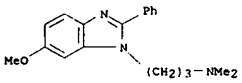
GI For diagram(s), see printed CA Issue.
AB The title compds. (I; R = H, Ac, Et, and Et2NCH2CH2), useful, e.g. for treating rheumatism or as hypnotics, were prepared by alkylation or acetylation of 2-(o-fluorophenyl)benzimidazole (II) or by reaction of N-alkyl-o-nitroanilines with o-FC6H4COCl, reduction of the NO2 group to the NH2 group and ring closure in dilute HCl to give I. Thus, II, prepared from o-FC6H4CO2H and o-(H2N)2C6H4, was refluxed with Ac2O 6 hr to give 88% I (R = Ac). I (R = Et) had LD50 1000 mg/kg in mice on oral administration.
IT **32385-57-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 32385-57-2 CAPLUS
CN Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(o-fluorophenyl)- (8CI) (CA INDEX NAME)



L4 ANSWER 115 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1971:405903 CAPLUS
DOCUMENT NUMBER: 75:5903
TITLE: Benzimidazole derivatives
INVENTOR(S): Hasegawa, Hajime; Maruyama, Hiroshi
PATENT ASSIGNEE(S): Yoshitomi Pharmaceutical Industries, Ltd.
SOURCE: Jpn. Tokkyo Koho, 4 pp.
CODEN: JAXXAD
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

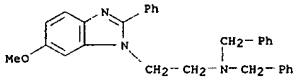
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 45039543	B4	19701212	JP	19671113

GI For diagram(s), see printed CA Issue.
AB The title compds. (I), useful as drugs having central inhibitor, excitation, analgesic, antiinflammatory, or vasodilatation effect, are prepared by cyclocondensation of II and III. Thus, a mixture of PhCHO.NaHSO3 and 2-[3-(dimethylamino)propylamino]-4-methoxyaniline in iso-PrOH was refluxed 4 hr to give I.2HCl.3H2O (R = Me, R1 = H), m. 151-3° (iso-PrOH). Similarly were prepared 10 addnl. I and 1-[2-(dibenzylamino)ethyl]-2-phenyl-6-methoxybenzimidazole and 1-(3-N-phenyl-N-methylaminopropyl)-2-(o-methoxyphenyl)-6-methoxybenzimidazole.
IT **32275-65-3P 32275-66-4P 34325-18-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 32275-65-3 CAPLUS
CN Benzimidazole, 1-[3-(dimethylamino)propyl]-6-methoxy-2-phenyl-, dihydrochloride (8CI) (CA INDEX NAME)



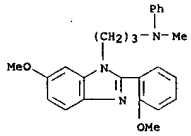
●2 HCl

RN 32275-66-4 CAPLUS
CN Benzimidazole, 1-[2-(dibenzylamino)ethyl]-6-methoxy-2-phenyl- (8CI) (CA INDEX NAME)



L4 ANSWER 115 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

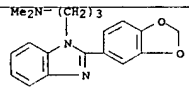
RN 34325-18-3 CAPLUS
CN Benzimidazole, 6-methoxy-2-(o-methoxyphenyl)-1-[3-(N-methylanilino)propyl]- (8CI) (CA INDEX NAME)



L4 ANSWER 116 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1971:405901 CAPLUS
DOCUMENT NUMBER: 75:5901
TITLE: Benzimidazole derivatives
INVENTOR(S): Hasegawa, Hajime; Maruyama, Hiroshi
PATENT ASSIGNEE(S): Yoshitomi Pharmaceutical Industries, Ltd.
SOURCE: Jpn. Tokkyo Koho, 4 pp.
CODEN: JAXXAD
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

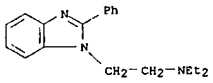
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 45039541	B4	19701212	JP	19670907

GI For diagram(s), see printed CA Issue.
AB The title compds. (I), useful as drugs having central inhibitor, excitation, antiinflammatory, analgesic, of vasodilatation effects, are prepared by cyclocondensation of II and III. Thus, a mixture of piperonal, NaHSO3, II (R1 = Me, R2 = H, A = C3H6), and iso-PrOH was refluxed 2 hr to give I.HCl.2.5H2O (R1 = Me, R2 = H, (R3R4 =) methylenedioxy, A = C3H6), m. 235-7° (iso-PrOH). Similarly were prepared 29 addnl. I.
IT **32286-72-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 32286-72-9 CAPLUS
CN Benzimidazole, 1-[3-(dimethylamino)propyl]-2-[3,4-(methylenedioxy)phenyl]-, dihydrochloride (8CI) (CA INDEX NAME)

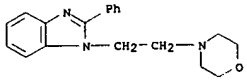


●2 HCl

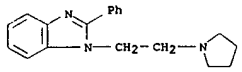
L4 ANSWER 117 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1970:20389 CAPLUS
DOCUMENT NUMBER: 72:20389
TITLE: Antisecretory compounds of a new structure and mode of action
AUTHOR(S): Decsi, L.; Mehes, J.; Hideg, K.; Hankovszky, O. K.; Varszegi, M. K.
CORPORATE SOURCE: Med. Sch., Pecs, Hung.
SOURCE: Conf. Hung. Ther. Invest. Pharmacol., Soc. Pharmacol. Hung., 4th (1968), Meeting Date 1966, 269-72. Editor(s): Dumbovich, B. Akad. Kiado: Budapest, Hung. CODEN: 21PFAR
DOCUMENT TYPE: Conference
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB Of 12 benzimidazole (I) derivs. examined for their possible inhibitory effect on gastric secretion in the rat, 3 of these, viz., compds. H-291, H-635, and H-274 (R1 = H, H, and Ph, resp.; R2 = CH2OH, piperidinoethyl (A), and A, resp.) exhibited rather high therapeutic ratios, i.e., low toxicity accompanied by a good antisecretory effect. This antisecretory action, which could not be explained on the basis of atropinelike effect, appeared to be due, at least in part, to a selective block of the parasympathetic ganglia without influencing transmission in the sympathetic ganglia, representing a new type of pharmacodynamic action. Since H-635 (representative of all 3 I derivs.) was also capable of abolishing the effects of direct chemical stimulation of the hypothalamus (i.e ., the rage reaction evoked by an intrahypothalamic injection of carbachol into cats), this indicated that the compds. could profoundly alter the function of that part of the brain which is primarily responsible for the regulation of gastric acid and gastric juice secretion. This hypothalamic effect and the parasympathetic ganglion-blocking action both play a part in the antisecretory activity of I derivs. The ratios of the LD50 values after oral and i.p. administration, which could be regarded as an approx. measure of intestinal absorption, were much higher for H-635 in the mouse and the rat than for novo-atropine or Pro-Banthine. Since H-635, in addition to its novel pharmacodynamic action, strongly inhibited intestinal mobility, afforded a certain degree of protection against restraint ulcer and, to a lesser extent, against Shay ulcer, and was well tolerated in chronic toxicity tests, it has been recommended for clin. pharmacol. trial.
IT **5295-00-1 5322-96-3 5322-97-4 14339-09-4 14671-52-4**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(ulcer-inhibiting activity of)
RN 5295-00-1 CAPLUS
CN Benzimidazole, 1-[2-(diethylamino)ethyl]-2-phenyl- (7CI, 8CI) (CA INDEX NAME)



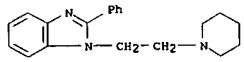
L4 ANSWER 117 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
RN 5322-96-3 CAPLUS
CN 1H-Benzimidazole, 1-[2-(4-morpholinyl)ethyl]-2-phenyl- (9CI) (CA INDEX NAME)



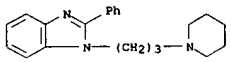
RN 5322-97-4 CAPLUS
CN Benzimidazole, 2-phenyl-1-[2-(1-pyrrolidinyl)ethyl]- (7CI, 8CI) (CA INDEX NAME)



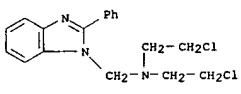
RN 14339-09-4 CAPLUS
CN 1H-Benzimidazole, 2-phenyl-1-[2-(1-piperidinyl)ethyl]- (9CI) (CA INDEX NAME)



RN 14671-52-4 CAPLUS
CN Benzimidazole, 2-phenyl-1-(3-piperidinopropyl)- (8CI) (CA INDEX NAME)



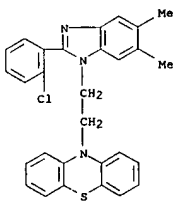
L4 ANSWER 118 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1969:500211 CAPLUS
DOCUMENT NUMBER: 71:100211
TITLE: Effects of 1-[di(2-chloroethyl)aminomethyl]benzimidazole and related compounds on the growth of experimental tumors
AUTHOR(S): Reddy, V. V. Subba; Sirsi, M.; Revankar, G. R.; Siddappa, S.
CORPORATE SOURCE: Microbiol. Pharmacol. Lab., Indian Inst. Sci., Bangalore, India
SOURCE: Journal of Pharmacy and Pharmacology (1969), 21(9), 573-6
CODEN: JPPMAB; ISSN: 0022-3573
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The inhibitory activity of some benzimidazole Mannich-base N mustards on the growth of exptl. tumors, viz. mouse fibrosarcoma in mice and Yoshida ascites sarcoma in rats has been examined Among the compds. tested 5,6-dichloro-1[di(2-chloroethyl)aminomethyl]benzimidazole and 1-[di(2-chloroethyl)-aminomethyl]-2-phenylbenzimidazole showed an inhibitory effect on mouse fibrosarcoma. 4-Bromo-1-[di(2-chloroethyl)amino-methylbenzimidazole, 4-chloro - 1 - [di(2-chloroethyl)aminomethyl]benzimidazole, and 1-[di(2-chloroethyl)aminomethyl]-5-methoxybenzimidazole were active against Yoshida ascites sarcoma.
IT **13786-65-7**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(neoplasm inhibition by)
RN 13786-65-7 CAPLUS
CN 1H-Benzimidazole-1-methanamine, N,N-bis(2-chloroethyl)-2-phenyl- (9CI) (CA INDEX NAME)



L4 ANSWER 119 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1968:443924 CAPLUS
DOCUMENT NUMBER: 69:43924
TITLE: Benzimidazoles carrying a substitute derived from phenothiazine
PATENT ASSIGNEE(S): Chimetron Sarl.
SOURCE: Fr., 7 pp.
CODEN: FRXXAK
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

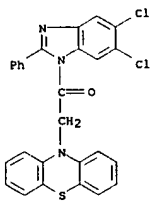
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 1488281		19670713	FR	19660329

GI For diagram(s), see printed CA Issue.
AB Anthelmintic compds. (I) containing in the same mol. a phenothiazine and a benzimidazole nucleus substituted in position were prepared In an example 37.7 g. N-[3-(10-phenothiazinyl)-propyl]-2-nitroaniline in a solution of 250 ml. anhydrous pyridine was treated with 14.8 g. 4-thiazolylcarbonyl chloride over night at room temperature, a dinitranilide was separated and put in 150 ml.
EtOH with 50 ml. concentrated HCl. It was treated with H at 3 atms. in the presence of 2 g. of 5% Pd on alumina. Hydrogenation with stirring was stopped when H absorption reached 0.6 g. The pressure was lowered to atms. and the reaction boiled 4 hrs. to give I [X = (CH2)3, R = 4-thiazolyl]. Also prepared were the following I (X and R given): (CH2)2, 2-furyl; COCH2CO, 2-furyl; and 1-[2-(10-phenothiazinyl)ethyl]-5,6-dimethyl-2-(2-chlorophenyl)benzimidazole and 1-(10-phenothiazinylacetyl)-5,6-dichloro-2-phenylbenzimidazole.
IT **19547-74-1P 19547-76-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 19547-74-1 CAPLUS
CN Phenothiazine, 10-[2-[2-(o-chlorophenyl)-5,6-dimethyl-1-benzimidazolyl]ethyl]- (8CI) (CA INDEX NAME)



RN 19547-76-3 CAPLUS
CN Benzimidazole, 5,6-dichloro-1-(phenothiazin-10-ylacetyl)-2-phenyl- (8CI) (CA INDEX NAME)

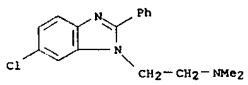
L4 ANSWER 119 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L4 ANSWER 120 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1968:39625 CAPLUS
DOCUMENT NUMBER: 68:39625
TITLE: New benzimidazoles
INVENTOR(S): Spickett, Robert G. W.; Ridley, Horace F.
PATENT ASSIGNEE(S): Smith Kline and French Laboratories Ltd.
SOURCE: Brit., 4 pp.
CODEN: BRXXAA
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

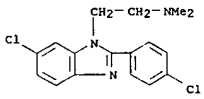
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1064114		19670405	GB	19630201

GI For diagram(s), see printed CA Issue.
AB Benzimidazoles (I), of possible value as chemotherapeutic agents, are prepared by treating the substituted aniline (II) with RCN, RCHO, or their derivs., or RCO2H, or RCO2COR. Thus, II (R1 = 4-Cl, R2 = Me, n = 2) (15.6 g.) and the bisulfite addition compound of PhCHO (14.6 g.) was refluxed 3 hrs. with 150 ml. EtOH. Filtration, concentration, dilution with H2O, and extraction with C6H6 gave 10 g. I (R = Ph, R1 = 6-Cl, R2 = Me, n = 2), m. 105-8° (iso-PrOH). Similarly prepared were the I given in the 1st table. [TABLE OMITTED] Alternatively, I may be prepared by treating the substituted benzimidazole (III) with the amine X(CH2)nNR22 and a condensing agent, e.g., NaH. Thus, III (R = p-ClC6H4, R1 = H) (11.5 g.) in 75 ml. HCONMe2 was added to 2.14 g. NaH (54% dispersion in paraffin) in 50 ml. HCONMe2, keeping the temperature at 20°. After 4 hrs. stirring 0.1 mole Me2N(CH2)2Cl in 50 ml. C6H6 was added and the mixture stirred 16 hrs. at 20° and then 3 hrs. at 65°. [TABLE OMITTED] Dilution with H2O and extraction with C6H6 yielded 10.4 g. I (R = p-ClC6H4, R1 = H, R2 = Me, n = 2), m. 87-9° (gasoline). Similarly prepared were the I given in the 2nd table.
IT **4946-03-6P 4946-04-7P 14339-16-3P 14988-18-2P 16823-12-4P 16823-14-6P 16823-15-7P 16823-16-8P 16861-66-8P 16861-67-9P 16861-68-0P 16861-70-4P 16861-71-5P 16861-72-6P 16861-73-7P 16861-74-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 4946-03-6 CAPLUS
CN Benzimidazole, 6-chloro-1-[2-(dimethylamino)ethyl]-2-phenyl- (7CI, 8CI) (CA INDEX NAME)

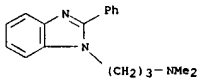


RN 4946-04-7 CAPLUS
CN Benzimidazole, 6-chloro-2-(p-chlorophenyl)-1-[2-(dimethylamino)ethyl]- (7CI, 8CI) (CA INDEX NAME)

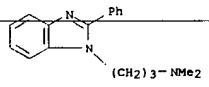
L4 ANSWER 120 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 14339-16-3 CAPLUS
CN Benzimidazole, 1-[3-(dimethylamino)propyl]-2-phenyl- (8CI) (CA INDEX NAME)

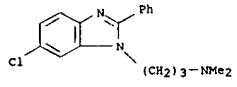


RN 14988-18-2 CAPLUS
CN Benzimidazole, 1-[3-(dimethylamino)propyl]-2-phenyl-, dihydrochloride (8CI) (CA INDEX NAME)



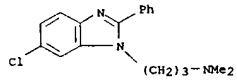
● 2 HCl

RN 16823-12-4 CAPLUS
CN Benzimidazole, 6-chloro-1-[3-(dimethylamino)propyl]-2-phenyl- (8CI) (CA INDEX NAME)



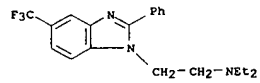
RN 16823-14-6 CAPLUS
CN Benzimidazole, 6-chloro-1-[3-(dimethylamino)propyl]-2-phenyl-, monohydrochloride (8CI) (CA INDEX NAME)

L4 ANSWER 120 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

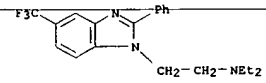


● HCl

RN 16823-15-7 CAPLUS
CN Benzimidazole, 1-[2-(diethylamino)ethyl]-2-phenyl-5-(trifluoromethyl)- (8CI) (CA INDEX NAME)

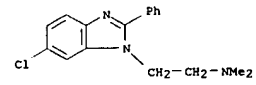


RN 16823-16-8 CAPLUS
CN Benzimidazole, 1-[2-(diethylamino)ethyl]-2-phenyl-5-(trifluoromethyl)-, monohydrochloride (8CI) (CA INDEX NAME)



● HCl

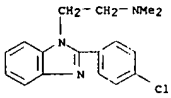
RN 16861-66-8 CAPLUS
CN Benzimidazole, 6-chloro-1-[2-(dimethylamino)ethyl]-2-phenyl-, monohydrochloride (8CI) (CA INDEX NAME)



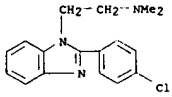
● HCl

RN 16861-67-9 CAPLUS
CN Benzimidazole, 2-(p-chlorophenyl)-1-[2-(dimethylamino)ethyl]- (8CI) (CA

L4 ANSWER 120 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
INDEX NAME)

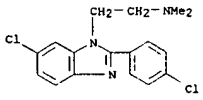


RN 16861-68-0 CAPLUS
CN Benzimidazole, 2-(p-chlorophenyl)-1-[2-(dimethylamino)ethyl]-, monohydrochloride (8CI) (CA INDEX NAME)



● HCl

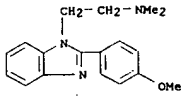
RN 16861-70-4 CAPLUS
CN Benzimidazole, 6-chloro-2-(p-chlorophenyl)-1-[2-(dimethylamino)ethyl]-, monohydrochloride (8CI) (CA INDEX NAME)



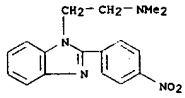
● HCl

RN 16861-71-5 CAPLUS
CN Benzimidazole, 1-[2-(dimethylamino)ethyl]-2-(p-methoxyphenyl)- (7CI, 8CI) (CA INDEX NAME)

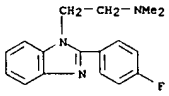
L4 ANSWER 120 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



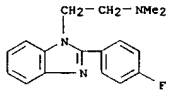
RN 16861-72-6 CAPLUS
CN Benzimidazole, 1-[2-(dimethylamino)ethyl]-2-(p-nitrophenyl)- (8CI) (CA INDEX NAME)



RN 16861-73-7 CAPLUS
CN Benzimidazole, 1-[2-(dimethylamino)ethyl]-2-(p-fluorophenyl)- (8CI) (CA INDEX NAME)

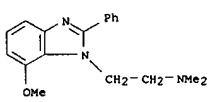


RN 16861-74-8 CAPLUS
CN Benzimidazole, 1-[2-(dimethylamino)ethyl]-2-(p-fluorophenyl)-, dihydrochloride (8CI) (CA INDEX NAME)



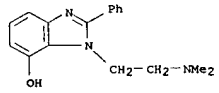
●2 HCl

L4 ANSWER 121 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1967:516847 CAPLUS
DOCUMENT NUMBER: 67:116847
TITLE: Imidazole derivatives. XL. Synthesis of benzimidazole analogs of psilocine
AUTHOR(S): Efros, L. S.; Kumarev, V. P.; Zakhs, E. R.
CORPORATE SOURCE: Leningr. Teknol. Inst., im. Lensoveta, Leningrad, USSR
SOURCE: Khimiya Geterotsiklicheskikh Soedinenii (1967), (2), 336-8
CODEN: KGSSAQ; ISSN: 0132-6244
DOCUMENT TYPE: Journal
LANGUAGE: Russian
GI For diagram(s), see printed CA Issue.
AB cf. CA 65: 15207h, 15365f. m-Nitroanisole (40 g.) was added with stirring to 100 ml. HNO3 (d. 1.48) at 0-20°. After 15 min. the reaction mixture was cooled to -10° to give 42% 2,3-dinitroanisole (I), m. 119°. A mixture of 60 ml. MePh, 19.8 g. I, and 17.6 g. N,N-dimethylethylenediamine was heated 1 hr. on a water bath. A PhMe layer was extracted with 60 ml. dilute 1:1 HCl, the solution neutralized under cooling with aqueous NH3 to yield 97% II (X = NO2) (III), m. 32.5-4.0°; III perchlorate m. 130-2°. An ethanolic solution of III was hydrogenated with H over Raney Ni at atmospheric pressure, the catalyst was filtered off, the filtrate added to 2 equivs. HCl to give 93-6% II.2HCl (X = NH2) (IV), m. 208-10° (decomposition) (1:10 EtOH-PrOH). A mixture of IV with 80% HCO2H (1:10) was boiled 5 hrs. to yield 98% V.2HCl (R = H), m. 245-7° (decomposition) (PrOH). IV (5 g.) in 30 ml. H2O and 2 ml. BzH in 15 ml. EtOH was added to a solution of 7.1 g. Cu acetate in 120 ml. EtOH, the mixture was stirred 0.5 hr., and boiled 1 hr. to give a Cu complex precipitate, which was washed with H2O and Me2CO and heated with 50 ml. concentrated HCl. The solution was cooled, 50 ml. EtOH added and neutralized with aqueous NH3 up to the complete dissoln. of the precipitate The solution was evaporated in vacuo to give V.2HCl (R = Ph), m. 107° (10:1 H2O-EtOH). A mixture of IV, PhCH2CO2H, and 4N HCl (1:1.25:5) was boiled 5 hrs. according to Phillips (P. et al., CA 23: 141) to yield 90-5% V.2HCl (R = CH2Ph), m. 225-6° (decomposition). Dihydrobromides of VI were prepared in 80-95% yields by boiling V derivs. 4 hrs. with a 7-10-fold excess of concentrated HBr. After boiling, the mixts. were evaporated almost to dryness, Me2CO or PrOH was added to give dihydrobromides of VI (R and m.p. given): H, 240° (decomposition) (PrOH-EtOH 10:1); Ph, 247-9° (decomposition) (Me2CO); CH2Ph, -(decomposing without melting). 4 references.
IT **16315-11-0P 16315-14-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 16315-11-0 CAPLUS
CN Benzimidazole, 1-[2-(dimethylamino)ethyl]-7-methoxy-2-phenyl- (8CI) (CA INDEX NAME)



RN 16315-14-3 CAPLUS
CN 7-Benzimidazolol, 1-[2-(dimethylamino)ethyl]-2-phenyl-, dihydrobromide (8CI) (CA INDEX NAME)

L4 ANSWER 121 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



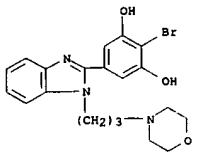
●2 HBr

L4 ANSWER 122 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1967:86617 CAPLUS
DOCUMENT NUMBER: 66:86617
TITLE: Photosensitive diazo compositions
INVENTOR(S): Sues, Oskar; Schaefer, Heinz
PATENT ASSIGNEE(S): Keuffel and Esser Co.
SOURCE: U.S., 4 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

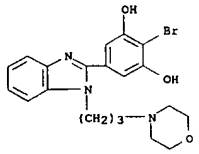
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3294542		19661227		
PRIORITY APPLN. INFO.:			DE	19631223

GI For diagram(s), see printed CA Issue.
AB Photocopies with red tones can be obtained by the use of a 2-component diazotype material containing as diazo coupler a 2-(3,5-dihydroxyphenyl)benzimidazole of the general formula I, where R is H, Me, Et, HOCH2CH2, or a 3-morpholinopropyl (Q) group, R' is H, Cl, Me, MeO, or EtO, R" is H, Me, or MeO, and X = H or Br. 4,3,5-Br(AcO)2C6H2COCl (33.5 g.) in 100 cc. dioxane treated dropwise with stirring at 30-40° with 21.5 g. 2-QNHC6H4NH2 in 49 cc. dioxane and 8 cc. C5H5N and evaporated, the sirupy residue dissolved in dilute, warm 2N NaOH, and acidified with AcOH, a 20-g. portion of the precipitated base (m. .apprx.115° with previous sintering) heated for 0.5 hr. at 90° with 100 cc. 30% HCl, refluxed for 10 min., and cooled gave I.HCl (R = Q, R' = R" = H, X = Br) (II.HCl), m. 255° with previous sintering (decomposition); II.HCl dissolved in aqueous NaOH and neutralized with AcOH gave II, m. 208-9° (decomposition). Similarly were prepared the following I (R, R', R", X, and m.p. given): Me, H, H, Br, 272°; Me, MeO, H, Br, 252°; HOCH2CH2, H, H, Br, 248-9°. Paper precoated with colloidal silica and poly(vinyl acetate) and coated with an aqueous solution containing 4 g. citric acid, 2 g. B(OH)3, 0.5 cc. concentrated HCl, 4 g. thiourea, 3 g. 1,3,6-C10H5(SO3Na)3, 1 g. p-Et2NC6H4N2Cl.ZnCl2, and 2 g. II/100 cc. gave a photocopy material which exposed under a transparent original and developed with gaseous NH3 gave high-contrast copies with bluish red lines on a pure white background. 4,3-H2N(O2N)C6H3Me (152 g.) in 600 cc. dioxane and 78 cc. C5H5N added dropwise at 60-70° with stirring to 335 g. 4,3,5-Br(AcO)2C6H2COCl in 1000 cc. dioxane, added after 45 min. to 100 cc. 5N NaOH, and neutralized with HCl gave 280 g. 4,3,5-Br(HO)2C6H2CONHC6H3(NO2)Me-2,5 (III), m. 205°. III (260 g.) hydrogenated over Raney Ni gave 220 g. 4,3,5-Br(HO)2C6H2CONHC6H3(NH2)Me-2,5 (IV), m. 173° (decomposition). IV (110 g.) in 500 cc. AcOH refluxed 2 hrs. with stirring and then for 0.5 hr. with 5 cc. concentrated H2SO4 added gave 40 g. I (R = R" = H, R' = Me, X = Br) (V), m. 282° (decomposition). A transparent paper lacquered with cellulose acetate and coated with a solution of 2 g. citric acid, 1 g. B(OH)3, 2 g. thiourea, 2 g. V, and 4-morpholino-2,5-dimethoxybenzenediazonium chloride-ZnCl2 double salt in 50 cc. H2O and 50 cc. iso-PrOH gave a photocopy material which gave copies in slightly bluish red lines. In the same manner as V were prepared the following I (R, R', R", X, and m.p. given): H, H, H, Br, 283°; H, H, H, H, 310°; H, H, MeO, Br, 272°; H, H, MeO, H, 290°; H, EtO, H, Br, 267°; H, EtO, H, H, 284°; H, Me,

L4 ANSWER 122 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
H, H, 337°; H, Cl, H, Br, 260°; Et, H, Me, H, 303-5°.
IT **5284-57-1P 5354-79-0P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of)
RN 5284-57-1 CAPLUS
CN Resorcinol, 2-bromo-5-[1-(3-morpholinopropyl)-2-benzimidazolyl]- (7CI, 8CI) (CA INDEX NAME)

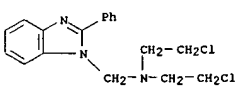


RN 5354-79-0 CAPLUS
CN Resorcinol, 2-bromo-5-[1-(3-morpholinopropyl)-2-benzimidazolyl]-, monohydrochloride (8CI) (CA INDEX NAME)

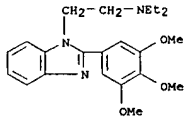


● HCl

L4 ANSWER 123 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1967:85730 CAPLUS
DOCUMENT NUMBER: 66:85730
TITLE: Benzimidazoles. VII. Mannich base type nitrogen mustards from derivatives of benzimidazole
AUTHOR(S): Revankar, G. R.; Siddappa, S.
CORPORATE SOURCE: Karnatak Univ., Dharwar, India
SOURCE: Monatshefte fuer Chemie (1967), 98(1), 169-75
CODEN: MOCHAP
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 66:85730
GI For diagram(s), see printed CA Issue.
AB cf. CA 65, 12192d. A mixture of 5.9 g. benzimidazole, 1.58 g. paraformaldehyde, and 5.25 g. HN(CH2CH2OH)2 in 50 ml. absolute EtOH was heated 10 hrs. to give 1-[bis(2-hydroxyethyl)aminomethyl]benzimidazole, m. 140-1°. Similarly were prepared 1-[bis(2-hydroxyethyl)aminomethyl]-4-chlorobenzimidazole, decomposing 152°, and 1-[bis(2-hydroxyethyl)aminomethyl]-4-bromobenzimidazole, m. 151-2°. Cooled 0.5 g. NaOH in 5 ml. H2O was treated with 1.8 g. HN(CH2CH2Cl)2.HCl. The mixture was extracted with Et2O and the extract washed and evaporated in vacuo. The cooled residue was treated with 8 ml. 1:3 37% HCHO-EtOH, and the addition of 1.18 g. benzimidazole and refluxed 30 min. to give 20% 1-[bis(2-chloroethyl)aminomethyl]benzimidazole, m. 140°. Similarly was prepared 1-[bis(2-chloroethyl)aminomethyl]-α,β-naphthimidazole, decomposing 165°, and the following substituted benzimidazoles (I) (R1, R2, R3, R4, and m.p. given): H, H, H, Cl, 159° (decomposition); H, H, H, Br, 121-2°; Me, H, H, H, 148°; Ph, H, H, H, 325°; H, H, OMe, H, 208°; H, Me, Me, H, 190°; and H, Cl, Cl, H, 198° (decomposition). Stirred 1.8 g. HN(CH2CH2Cl)2.HCl in 8 ml. 3:1 37% HCHO-EtOH was treated successively with 2.8 g. 2-benzylbenzimidazole and a small amount of EtOH to give 28% α-[bis(2-chloroethyl)aminomethyl]-2-benzylbenzimidazole, m. 90°.
IT **13786-65-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 13786-65-7 CAPLUS
CN 1H-Benzimidazole-1-methanamine, N,N-bis(2-chloroethyl)-2-phenyl- (9CI) (CA INDEX NAME)

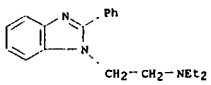


L4 ANSWER 124 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1967:65425 CAPLUS
DOCUMENT NUMBER: 66:65425
TITLE: Benzazoles. III. Alkylation of benzimidazoles
AUTHOR(S): Hideg, Kalman; Hankovszky, H. Olga
CORPORATE SOURCE: Inst. Pharmacol., Univ. Med. School, Pecs, Hung.
SOURCE: Acta Chirurgica Academiae Scientiarum Hungaricae (1966), 49(3), 303-10
CODEN: ACAHA3; ISSN: 0001-5431
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB Two methods for the preparation of alkyl benzimidazoles are described. Thus, to 35.4 g. benzimidazole and 59.5 g. N-(3-chloropropyl)piperidine-HCl in 300 ml. EtOH was added 26 g. NaOH in 50 ml. H2O and the mixture refluxed 8 hrs. until NaCl precipitation was complete to give 75% I (n = 3, Nr2 = piperidino, R1 = H), b1.5 230°; HCl salt m. 225-41°. The tabulated I were similarly prepared Also, 4.4 g. powdered NaOH was added to a suspension of 25.2 g. 2-(4-ethoxybenzyl)benzimidazole in 250 ml. 250 ml. C6H6 and 14.9 g. chloro-N,N-diethylacetamide was slowly added and the mixture refluxed 5 hrs. to give 75% III (R = 4-ethoxybenzyl), m. 91-2°; corresponding IV m. 162-4°. Similarly were prepared the following III (R, % yield, m.p., and m.p. corresponding IV given): Ph, 48, 360°, -; 2-ethylpyridyl, 72, 195-210°, 210-13° (N-methylpyridinium diiodide); benzyl, 60, 169-75°, 123-5°; 4-methoxybenzyl, 38, 101-3°, -; 3,4-dimethoxybenzyl, 81, 127-30°, -.
IT **5294-97-3P 5295-00-1P 5322-96-3P 5322-97-4P 5322-99-6P 14268-92-9P 14268-94-1P 14338-98-8P 14339-06-1P 14339-08-3P 14339-09-4P 14339-10-7P 14339-16-3P 14492-91-2P 14521-64-3P 14551-03-2P 14671-52-4P 14937-11-2P 14988-18-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 5294-97-3 CAPLUS
CN Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(3,4,5-trimethoxyphenyl)- (7CI, 8CI) (CA INDEX NAME)

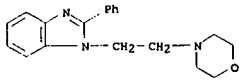


RN 5295-00-1 CAPLUS
CN Benzimidazole, 1-[2-(diethylamino)ethyl]-2-phenyl- (7CI, 8CI) (CA INDEX NAME)

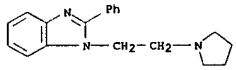
L4 ANSWER 124 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



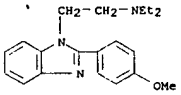
RN 5322-96-3 CAPLUS
CN 1H-Benzimidazole, 1-[2-(4-morpholinyl)ethyl]-2-phenyl- (9CI) (CA INDEX NAME)



RN 5322-97-4 CAPLUS
CN Benzimidazole, 2-phenyl-1-[2-(1-pyrrolidinyl)ethyl]- (7CI, 8CI) (CA INDEX NAME)

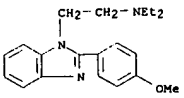


RN 5322-99-6 CAPLUS
CN Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(p-methoxyphenyl)- (7CI, 8CI) (CA INDEX NAME)



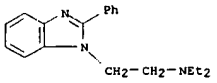
RN 14268-92-9 CAPLUS
CN Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(p-methoxyphenyl)-, dihydrochloride (8CI) (CA INDEX NAME)

L4 ANSWER 124 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



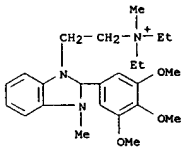
●2 HCl

RN 14268-94-1 CAPLUS
CN Benzimidazole, 1-[2-(diethylamino)ethyl]-2-phenyl-, dihydrochloride (8CI) (CA INDEX NAME)



●2 HCl

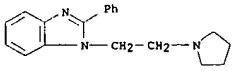
RN 14338-98-8 CAPLUS
CN Benzimidazolium, 1-[2-(diethylmethylammonio)ethyl]-1-methyl-2-(3,4,5-trimethoxyphenyl)-, diiodide (8CI) (CA INDEX NAME)



●2 I⁻

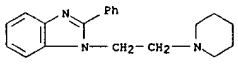
ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
RN 14339-06-1 CAPLUS
CN Benzimidazole, 2-phenyl-1-[2-(1-pyrrolidinyl)ethyl]-, dihydrochloride (8CI) (CA INDEX NAME)

L4 ANSWER 124 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



●2 HCl

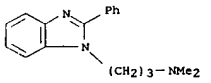
RN 14339-08-3 CAPLUS
CN 1H-Benzimidazole, 2-phenyl-1-[2-(1-piperidinyl)ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)



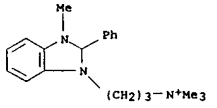
●2 HCl

RN 14339-09-4 CAPLUS
CN 1H-Benzimidazole, 2-phenyl-1-[2-(1-piperidinyl)ethyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 124 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

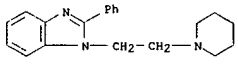


RN 14492-91-2 CAPLUS
CN Benzimidazolium, 3-methyl-2-phenyl-1-[3-(trimethylammonio)propyl]-, diiodide (8CI) (CA INDEX NAME)

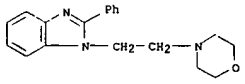


●2 I⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
RN 14521-64-3 CAPLUS
CN 1-Benzimidazoleacetamide, N,N-diethyl-2-phenyl-, monohydrochloride (8CI) (CA INDEX NAME)

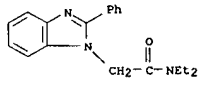


RN 14339-10-7 CAPLUS
CN 1H-Benzimidazole, 1-[2-(4-morpholinyl)ethyl]-2-phenyl-, dihydrochloride (9CI) (CA INDEX NAME)



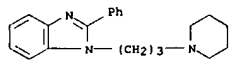
●2 HCl

RN 14339-16-3 CAPLUS
CN Benzimidazole, 1-[3-(dimethylamino)propyl]-2-phenyl- (8CI) (CA INDEX NAME)



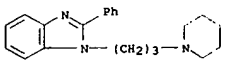
● HCl

RN 14551-03-2 CAPLUS
CN Benzimidazole, 2-phenyl-1-(3-piperidinopropyl)-, dihydrochloride (8CI) (CA INDEX NAME)

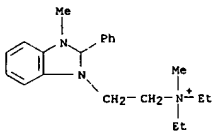


●2 HCl

L4 ANSWER 124 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
RN 14671-52-4 CAPLUS
CN Benzimidazole, 2-phenyl-1-(3-piperidinopropyl)- (8CI) (CA INDEX NAME)

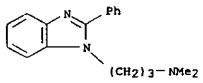


RN 14937-11-2 CAPLUS
CN Benzimidazolium, 1-(2-(diethylmethylammonio)ethyl]-3-methyl-2-phenyl-, diiodide (8CI) (CA INDEX NAME)



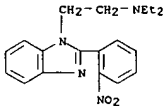
●2 I⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
RN 14988-18-2 CAPLUS
CN Benzimidazole, 1-[3-(dimethylamino)propyl]-2-phenyl-, dihydrochloride (8CI) (CA INDEX NAME)

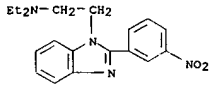


●2 HCl

L4 ANSWER 125 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 22 Apr 2001
ACCESSION NUMBER: 1966:84551 CAPLUS
DOCUMENT NUMBER: 64:84551
ORIGINAL REFERENCE NO.: 64:15869g-h
TITLE: Synthesis of 2-(o-, m-, or p-nitrophenyl)benzimidazoles having β-(dialkylamino)ethyl group in position I
AUTHOR(S): Sawlewicz, Jozef; Wyzinska, Danuta
CORPORATE SOURCE: Akad. Med., Gdansk, Pol.
SOURCE: Gdanskie Towarzyst. Nauk., Wydzial Nauk Mat. Przyrodniczych, Rozprawy Wydzialu III (1964), No. 1, 185-92
DOCUMENT TYPE: Journal
LANGUAGE: Polish
AB cf. preceding abstract Reaction of β-(diethylamino)ethyl chloride-HCl with 2-(o-, m-, or p-nitrophenyl)benzimidazoles in anhydrous dioxane with NaNH2 catalyst yielded, after boiling 20 hrs., corresponding 1-β-(diethylamino)ethyl compds. o-Nitro and m-nitro derivs. were isolated as picrates (% yield and m.p. given): 54, 197-9° (MeOH-Me2CO); 52.5, 186-7° (EtOH), resp. The p-nitro derivative, m. 98.5-100° (C6H6) was obtained in 57% yield. Attempts to prepare these compds. by substituting the Cl in 1-(β-chloroethyl)-2-(o-, m-, or p-nitrophenyl)benzimidozoles with Et2NH were unsuccessful.
IT **5499-60-5**, Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(o-nitrophenyl)- **5499-61-6**, Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(m-nitrophenyl)- **5499-62-7**, Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(m-nitrophenyl)-, dipicrate **5499-63-8**, Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(p-nitrophenyl)- **6225-04-3**, Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(o-nitrophenyl)-, dipicrate
(preparation of)
RN 5499-60-5 CAPLUS
CN Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(o-nitrophenyl)- (7CI, 8CI) (CA INDEX NAME)



RN 5499-61-6 CAPLUS
CN Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(m-nitrophenyl)- (7CI, 8CI) (CA INDEX NAME)

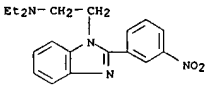


L4 ANSWER 125 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

RN 5499-62-7 CAPLUS
CN Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(m-nitrophenyl)-, dipicrate (7CI, 8CI) (CA INDEX NAME)

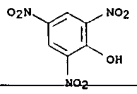
CM 1

CRN 5499-61-6
CMF C19 H22 N4 O2

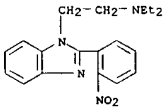


CM 2

CRN 88-89-1
CMF C6 H3 N3 O7

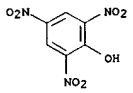


L4 ANSWER 125 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

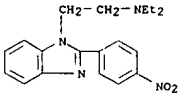


CM 2

CRN 88-89-1
CMF C6 H3 N3 O7



RN 5499-63-8 CAPLUS
CN Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(p-nitrophenyl)- (7CI, 8CI) (CA INDEX NAME)



RN 6225-04-3 CAPLUS
CN Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(o-nitrophenyl)-, dipicrate (7CI, 8CI) (CA INDEX NAME)

CM 1

CRN 5499-60-5
CMF C19 H22 N4 O2

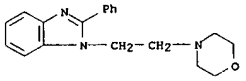
L4 ANSWER 126 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 22 Apr 2001
ACCESSION NUMBER: 1966:43862 CAPLUS
DOCUMENT NUMBER: 64:43862
ORIGINAL REFERENCE NO.: 64:8195f-h,8196a
TITLE: Phototropic compounds
PATENT ASSIGNEE(S): E. I. du Pont de Nemours & Co.
SOURCE: 20 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 296772		19650525	NL	19630816

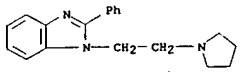
AB Dimers of 2,4,5-triphenylimidazoles, having at least one substituent free of a reactive H and which substituent is ortho to the 2-phenyl group, show phototropic properties of fast color change. Thus, refluxing 2 hrs. a mixture of 2.1 g. benzil, 50 g. AcOH, 6 g. NH4OAc, and 1.4 g. o-ClC6H4CHO and pouring the solution into 200 g. cold H2O gave 3.1 g. 2-(o-chlorophenyl)-4,5-diphenylimidazole (I), m. 196-7° (EtOH). Adding within 1.5 hrs. 450 g. 1% aqueous K3Fe(CN)6 to a solution of 1.1 g. I in 100 g. EtOH and 12 g. KOH, filtering off the precipitate, washing this with H2O, and drying 8 hrs. at 56°/0.1 mm. gave the EtOH-solvated dimer of I (2 moles EtOH-3 moles dimer), m. 95-110°, color at 170° lavender, at 190° red-brown, and at 220° red. Its color return (purple to light yellow) after exposure to sunlight is 16 times as fast as that of the unsubstituted substance. Similarly were prepared the following 2-substituted 4,5-diphenylimidazoles (2-substituent, m.p. monomer, m.p. dimer, color of dimer, color of dimer after exposure to sunlight, and ratio of color return rate as compared with that of the unsubstituted compound): 2,4-Cl2C6H3, 174.5-5.0°, 90°, light yellow, purple, 35; 2-MeOC6H4, 207.5-8.5°, 160°, light green, light blue, 17; 2,4-(MeO)2C6H3, 164-5°, --, light green, blue-green, 2; 1-naphthyl, 289.5-90°, 153°, light green, orange, 2.5; 2-BrC6H4, 205.5-6.5° 106°, light yellow, purple, 16; 2-FC6H4, 205.5-6.0° 139-49° (hydrate), light yellow, purple, 13; 2-EtOC6H4, --, 138°, light yellow, blue, --.

IT **5322-96-3**, Benzimidazole, 1-(2-morpholinoethyl)-2-phenyl- **5322-97-4**, Benzimidazole, 2-phenyl-1-[2-(1-pyrrolidinyl)ethyl]- **5322-98-5**, Benzimidazole, 2-phenyl-1-[2-(1-pyrrolidinyl)ethyl]-, hydrochloride **7128-97-4**, Benzimidazole, 1-(2-morpholinoethyl)-2-phenyl-, hydrochloride
(preparation of)

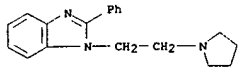
RN 5322-96-3 CAPLUS
CN 1H-Benzimidazole, 1-[2-(4-morpholinyl)ethyl]-2-phenyl- (9CI) (CA INDEX NAME)



L4 ANSWER 126 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
RN 5322-97-4 CAPLUS
CN Benzimidazole, 2-phenyl-1-[2-(1-pyrrolidinyl)ethyl]- (7CI, 8CI) (CA INDEX NAME)

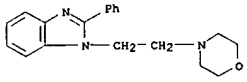


RN 5322-98-5 CAPLUS
CN Benzimidazole, 2-phenyl-1-[2-(1-pyrrolidinyl)ethyl]-, hydrochloride (7CI, 8CI) (CA INDEX NAME)



● HCl

RN 7128-97-4 CAPLUS
CN Benzimidazole, 1-(2-morpholinoethyl)-2-phenyl-, hydrochloride (7CI, 8CI) (CA INDEX NAME)



● HCl

L4 ANSWER 127 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 22 Apr 2001
ACCESSION NUMBER: 1966:43861 CAPLUS
DOCUMENT NUMBER: 64:43861
ORIGINAL REFERENCE NO.: 64:8195d-f
TITLE: Substituted benzimidazole derivatives
INVENTOR(S): Hideg, Kalman; Hankovszky, H. Olga; Mehes, Gyula; Decsi, Laszlo; Varszegi, Maria
PATENT ASSIGNEE(S): Egyesult Gyogyszer es Tapszergyar
SOURCE: 6 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
HU 152439		19651122	HU	19640406

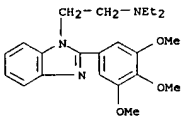
GI For diagram(s), see printed CA Issue.

AB Various I with pharmacol. activity are prepared by the reaction of R1-substituted benzimidazole and R2(CH2)nCl. Thus, a solution of 0.1 mole N-(β-chloroethyl)diethylamine in 50 ml. C6H6 is added to a suspension of 0.1 mole 2-(γ-pyridyl)benzimidazole and 0.2 mole KOH in 200 ml. C6H6, the mixture heated to complete the reaction, filtered, and concentrated to yield 1-(β-diethylaminoethyl)-2-(γpyridyl)benzimidazole, b0.8 240-5°; HCl salt m. 225-7°. Similarly are prepared the following derivs. (R1,R2, n, b.p./mm. of the base, m.p. of the HCl salt, and % yield given): H, Et2N, 2, 240-60°/1.0-5,196-9 °, 77; H, N-piperidyl, 2,220°/2.5, 230-2° 70; H, N-piperidyl, 3,230°/1.5,225-41°, 75; H, N-morpholinyl, 2, 230°/2.5, 120-3°, 72; Ph, N-morpholinyl, 2, 232-4°/0.2, 198-200°, 55; Ph, N-pyrrolidyl, 2, 280°/0.8, 138-41°, 71; p-MeOC6H4, Et2N, 2, 260°/0.8, 63-4° (base) 203-6°, 63; 3,4,5-trimethoxyphenyl, Et2N, 2, 250-60°/1.0, 206-9°, 86; γ-pyridyl, Et2N, 2, 238°/0.8, 208-10°, 78°; γ-pyridyl, Et2N, 2 (sic), 240-5°/0.8, 225-7°, 85; γ-(2-ethylpyridyl), Et2N, 2, 220°/0.9, 161-84°, 78; α-furyl, Et2N, 2, 240°/1.0-5, 193-7°, 53; and Ph, Et2N, 2, 232°/0.25, 182-4°, 69.

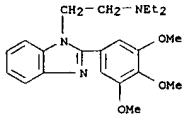
IT **5294-97-3**, Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(3,4,5-trimethoxyphenyl)- **5294-98-4**, Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(3,4,5-trimethoxyphenyl)-, hydrochloride **5295-00-1**, Benzimidazole, 1-[2-(diethylamino)ethyl]-2-phenyl- **5295-01-2**, Benzimidazole, 1-[2-(diethylamino)ethyl]-2-phenyl-, hydrochloride **5322-96-3**, Benzimidazole, 1-(2-morpholinoethyl)-2-phenyl- **5322-97-4**, Benzimidazole, 2-phenyl-1-[2-(1-pyrrolidinyl)ethyl]- **5322-98-5**, Benzimidazole, 2-phenyl-1-[2-(1-pyrrolidinyl)ethyl]-, hydrochloride **5322-99-6**, Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(p-methoxyphenyl)- **5323-00-2**, Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(p-methoxyphenyl)-, hydrochloride **7128-97-4**, Benzimidazole, 1-(2-morpholinoethyl)-2-phenyl-, hydrochloride
(preparation of)

RN 5294-97-3 CAPLUS
CN Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(3,4,5-trimethoxyphenyl)- (7CI, 8CI) (CA INDEX NAME)

L4 ANSWER 127 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

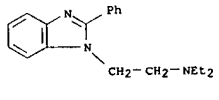


RN 5294-98-4 CAPLUS
CN Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(3,4,5-trimethoxyphenyl)-, hydrochloride (7CI, 8CI) (CA INDEX NAME)

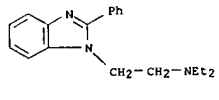


● HCl

RN 5295-00-1 CAPLUS
CN Benzimidazole, 1-[2-(diethylamino)ethyl]-2-phenyl- (7CI, 8CI) (CA INDEX NAME)



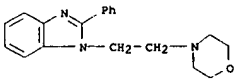
RN 5295-01-2 CAPLUS
CN Benzimidazole, 1-[2-(diethylamino)ethyl]-2-phenyl-, hydrochloride (7CI, 8CI) (CA INDEX NAME)



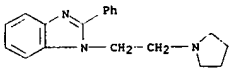
● HCl

RN 5322-96-3 CAPLUS
CN 1H-Benzimidazole, 1-[2-(4-morpholinyl)ethyl]-2-phenyl- (9CI) (CA INDEX

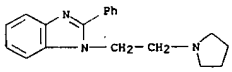
L4 ANSWER 127 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
NAME)



RN 5322-97-4 CAPLUS
CN Benzimidazole, 2-phenyl-1-[2-(1-pyrrolidinyl)ethyl]- (7CI, 8CI) (CA INDEX NAME)

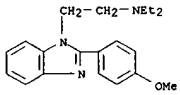


RN 5322-98-5 CAPLUS
CN Benzimidazole, 2-phenyl-1-[2-(1-pyrrolidinyl)ethyl]-, hydrochloride (7CI, 8CI) (CA INDEX NAME)



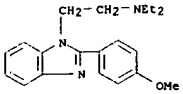
● HCl

RN 5322-99-6 CAPLUS
CN Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(p-methoxyphenyl)- (7CI, 8CI) (CA INDEX NAME)



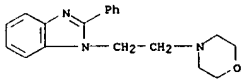
RN 5323-00-2 CAPLUS
CN Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(p-methoxyphenyl)-, hydrochloride (7CI, 8CI) (CA INDEX NAME)

L4 ANSWER 127 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



● HCl

RN 7128-97-4 CAPLUS
CN Benzimidazole, 1-(2-morpholinoethyl)-2-phenyl-, hydrochloride (7CI, 8CI) (CA INDEX NAME)



● HCl

L4 ANSWER 128 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 22 Apr 2001
ACCESSION NUMBER: 1966:35927 CAPLUS
DOCUMENT NUMBER: 64:35927
ORIGINAL REFERENCE NO.: 64:6664g-h,6665a-h
TITLE: New heterocyclic compounds
PATENT ASSIGNEE(S): J. R. Geigy A.-G.
SOURCE: 43 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

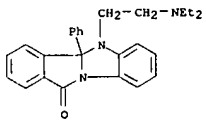
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
BE 659530		19650810	BE	
GB 1038735			GB	
NL 6501647			NL	
PRIORITY APPLN. INFO.:			CH	19640211

GI For diagram(s), see printed CA Issue.
AB Preparation of the title compds. is described. When 22.6 parts o-benzoylbenzoic acid (I) is mixed with 7.2 parts ethylenediamine (II), the temperature slowly rises to 80°. The temperature is slowly increased to 140° with the removal of H2O and excess II, and the mixture heated 2 hrs. at 140° cooled, and treated with C6H6 to give 9b-phenyl-1,2,3,9b-tetrahydro-5H-imidazo[2,1-a]isoindol-5-one (III), m. 150-1°; HCl salt m. 240-60°. Using appropriate compds., 9b-(p-ClC6H4), m. 166-8°; 9b-(p-MeSC6H4), m. 147°; 1-Me-9b-(p-ClC6H4, m. 135-7°; 1-Bu-9b-(p-ClC6H4), m. 121-3°; 9b-(2-hydroxy-5-chlorophenyl), m. 258-60°; 9b-(p-methylsulfonylphenyl), m. 265-7°; 2-Me-9b-(p-ClC6H4), m. 153.5-5° and 195.5-8° (two stereoisomers); 9b-(p-F3CC6H4), m. 191-0.5°; 9b-(p-BrC6H4), m. 146-8°; 9b-(p-MeC6H4), m. 151-4°; 9b-(p-MeOC6H4), m. 160-1°; 9b-(3-amino-4-chlorophenyl), m. 175-6°; 9b-(1-naphthyl), m. 166-7°; 9b-(3-acetamido-4-chlorophenyl), m. 198-9°; 1-(2-dimethylaminopropyl)-9b-phenyl, m. 100-1°; (1-(2-dimethylaminoethyl)-9b-phenyl, m. 179-81°; 9b-methyl, m. 112°; 9b-ethyl, m. 88°; 9b-benzyl, m. 117°; 1,9b-dimethyl, m. 74°; and 1-ethyl-9b-methyl, m. 79.5°, derivs. of III are prepared Replacing II with N-methylethylenediamine in the above preparation gave the 1-methyl derivative of III, m. 120-2°. 1-Ethyl, m. 119-21°; 1-propyl, m. 134-6°; 9b-(p-MeC6H4), m. 152-4°, 1-Me-9b-(p-MeC6H4), m. 112-14°; 9b-(p-C6H5CH2CH2), m. 119-24°; 1-Me-9b-(m-O2NC6H4), m. 148-50°; 9b-(m-O2NC6H4), m. 169-71°; 9b-(p-FC6H4), m. 188-90°; 1-Et-9b-(p-MeOC6H4), m. 76-8°; 1-Et-9b-(p-ClC6H4), m. 114-16°; 9b-(2,4-xylyl), m. 177.5-79°; 1-methyl-9b-(p-methoxyphenyl), m. 107-9°; 1-propyl-9b-(p-chlorophenyl), m. 137-40°; 1-methyl-9b-(p-phenethyl), m. 105-9°; 1-ethyl-9b-(p-tolyl), m. 109-11°; 1-ethyl-9b-(p-phenethyl), b0.005 169-78°; and 1-isopropyl-9b-phenyl, m. 178-80°, derivs. and analogs of III are similarly obtained. Use of 1,3-propanediamine instead of II yielded 10b-phenyl-1,3,4,10b-tetrahydropyrimido[2,1-a]isoindol-6(2H)-one (IV), m. 176-7°. The preparation of 10b-(p-ClC6H4), m. 159-60°; 10b-(m-O2NC6H4), m. 176.5-8°; 10b-(p-MeOC6H4), m. 161.5-3°; 10b-(p-MeSC6H4), m. 163-4°; 10b-(p-EtOC6H4), m. 166-7°; 10b-(3-amino-6-chlorophenyl), m. 168-9°; 10b-(2-hydroxy-5-methylphenyl); m. 257-9°; 10b-(p-BrC6H4), m. 151-2°; 10b-(p-FC6H4), m. 143-6°; 1-methyl-10b-phenyl, m. 169-71°; 1-Me-10b-(p-ClC6H4), m. 142-4°; 1-Me-10b-(m-O2NC6H4), m. 166-8°; 1-Me-10b-(p-MeOC6H4), m. 128-31°; 1-Et-10b-(p-ClC6H4), b0.04 200-2°; 1-Pr-10b-(p-ClC6H4), b0.02

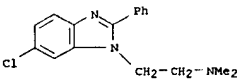
L4 ANSWER 128 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
198-200°; 1-Et-10b-(p-MeOC6H4), m. 126-9°; 1-propyl-10b-phenyl, m. 135-7°; 10b-(3-sulfamoyl-4-chlorophenyl), m. 222-4°; 10b-methyl, b0.1 120-3°, m. 64.5°; 10b-ethyl, m. 127.5°; 10b-benzyl, m. 131°; and 1,10b-dimethyl, b0.05 121-3°, derivs. of IV; 11b-phenyl-1,2,3,4,5,11b-hexahydro-7H-[1,3]diazepino[2,1-a]isoindol-7-one (V), m. 180-1°; 11b-(p-ClC6H4), m. 134-5°, deriv. of V; 9a-(p-chlorophenyl)-9,9a-dihydro-14H-dibenzo-[4,5:6,7][1,3]diazepino[2,1-α]isoindol-14-one (VI), m. 231-3°; 10b-(p-chlorophenyl)-1,3,4,10b-tetrahydropyrido[3',2':3,4]pyrrolo[1,2-a]pyrimidin-6(2H)-one (VII), m. 246-7°; 9b-(p-chlorophenyl)-1,2,3,9b-tetrahydro-5H-imidazo-[1',2':1,2]pyrrolo[4,3-b]pyridin-5-one, m. 226-7°; 7a-phenylhexahydro-5H-pyrrolo[1,2-a]imidazol-5-one (VIII), m. 129.5°; 1-methyl, m. 94°; 1-methyl-7a-(p-chlorophenyl), m. 86°; 1-Me-la-(m-O2NC6H5), m. 129.5°; 7a-(p-tert-BuC6H4), m. 200°; 7a-(p-ClC6H4), m. 156°; 7a-(p-MeC6H4), m. 134.5°; 7a-(p-MeOC6H4), m. 147.6°; 7a-(m-F3CC6H4), m. 119.5°; 7a-(o-HOC6H4), m. 200°; 7a-(m-O2NC6H4), m. 164.5°; 6,7a-diphenyl, m. 168°; 6-phenyl-7a-(4-methoxyphenyl), m. 150°, analogs of VIII; 8a-phenylhexahydropyrrolo[1,2-a]pyrimidin-6(2H)-one (IX), m. 134°; 8a-(p-ClC6H4), m. 125°; 8a-(p-MeC6H4), m. 147.5°; 8a-(p-tert-BuC6H4), m. 178.5°; 8a-(m-ClC6H4), m. 110°; 8a-(m-MeC6H4), m. 92.5°; 7,8a-diphenyl, m. 164.8°; 8a-(o-HOC6H4), m. 144.5°; 8a-(m-F3CC6H4), m. 97.5°; 7-Ph-8a-(p-MeOC6H4), m. 156°; 1-Me-8a-(p-ClC6H4, m. 151-2°; 1-Et-8a-(p-ClC6H4), b0.1 151-3°, analogs and derivs. of IX; 8a-phenylhexahydroimidazo[1,2-a]-pyridin-5(1H)-one (X), m. 137°; 7,7-dimethyl-8a-phenyl, m. 99.5°; 6,7-Ph2-8a-(p-MeOC6H4), m. 187.5°; 1-methyl-8a-phenyl, b0.03 135-7°, analogs and derivs. of X; 9a-(p-methoxyphenyl)octahydro-7H-pyrrolo[1,2-a][1,3]diazepin-7-one (XI), m. 100.2°; 9a-phenyl, m. 109°, and 9a-p-tolyl, m. 104.5°, analogs of XI; 9a-phenyloctahydro-6H-pyrido[1,2-a]-pyrimidin-6-one (XII), m. 142.5°; 8,8-dimethyl-9a-phenyl deriv. of XII, m. 120°; 11b-methyl-1,2,3,4,5,11b-hexahydro-7H-[1,3]-diazepino[2,1-a]isoindol-7-one (XIII), m. 136.5°; 9b-phenyldecahydro-5H-imidazo[2,1-a]isoindolo-5-one, m. 136-7°; 10-bphenyldecahydropyrimido[2,1-a]isoindol-6(6H)-one; m. 169-72°, and a few dihydro derivs. are also described.

IT **6029-67-0**, 11H-Isoindolo[2,1-a]benzimidazol-11-one, 5-[2-(diethylamino)ethyl]-4b,5-dihydro-4b-phenyl- (preparation of)

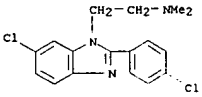
RN 6029-67-0 CAPLUS
CN 11H-Isoindolo[2,1-a]benzimidazol-11-one, 5-[2-(diethylamino)ethyl]-4b,5-dihydro-4b-phenyl- (7CI, 8CI) (CA INDEX NAME)



L4 ANSWER 129 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 22 Apr 2001
ACCESSION NUMBER: 1966:27499 CAPLUS
DOCUMENT NUMBER: 64:27499
ORIGINAL REFERENCE NO.: 64:5069d-f
TITLE: The photolysis of 2-chloro-2-nitrosobutane
AUTHOR(S): Baldwin, J. E.; Rogers, N. H.
CORPORATE SOURCE: Imp. Coll., London
SOURCE: Chemical Communications (London) (1965), (21), 524-5
CODEN: CCOMA8; ISSN: 0009-241X
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB cf. Mitchell and Cameron, CA 33, 24164; Bull, et al., CA 63, 3014d. Photolysis of 2-chloro-2-nitrosobutane in a methanol-ether mixture using a tungsten lamp gave a hydrochloride, C8H14O2N2.HCl, which could be converted into the base by use of Et3N. Evidence from uv, ir, N.M.R., and chemical degradation points to a dinitrone structure (I) for the base. Acid hydrolysis of I, gave an approx. equimolar mixture of ethyl methyl ketoxime (II) biacetyl monoxime (III). Treatment of these compds. with methanolic HCl gave a product identical with the hydrochloride from the photochemical reaction, thus implying that II and III are the initial products of the photochem. reaction.
IT **4946-03-6**, Benzimidazole, 6-chloro-1-[2-(dimethylamino)ethyl]-2-phenyl- **4946-04-7**, Benzimidazole, 6-chloro-2-(p-chlorophenyl)-1-[2-(dimethylamino)ethyl]- **4946-05-8**, Benzimidazole, 1-[2-(diethylamino)ethyl]-2-phenyl-5-(trifluoromethyl)-, dihydrochloride **5012-49-7**, Benzimidazole, 5-chloro-1-[2-(dimethylamino)ethyl]-2-phenyl- **5234-45-7**, Benzimidazole, 1-[2-(dimethylamino)ethyl]-2-phenyl-5-(trifluoromethyl)-, hydrochloride
(preparation of)
RN 4946-03-6 CAPLUS
CN Benzimidazole, 6-chloro-1-[2-(dimethylamino)ethyl]-2-phenyl- (7CI, 8CI) (CA INDEX NAME)

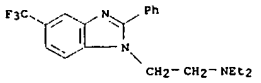


RN 4946-04-7 CAPLUS
CN Benzimidazole, 6-chloro-2-(p-chlorophenyl)-1-[2-(dimethylamino)ethyl]- (7CI, 8CI) (CA INDEX NAME)



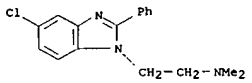
RN 4946-05-8 CAPLUS

L4 ANSWER 129 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CN Benzimidazole, 1-[2-(diethylamino)ethyl]-2-phenyl-5-(trifluoromethyl)-, dihydrochloride (7CI, 8CI) (CA INDEX NAME)

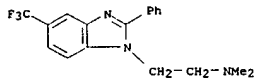


●2 HCl

RN 5012-49-7 CAPLUS
CN Benzimidazole, 5-chloro-1-[2-(dimethylamino)ethyl]-2-phenyl- (7CI, 8CI) (CA INDEX NAME)

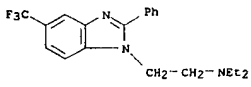


RN 5234-45-7 CAPLUS
CN Benzimidazole, 1-[2-(dimethylamino)ethyl]-2-phenyl-5-(trifluoromethyl)-, hydrochloride (7CI, 8CI) (CA INDEX NAME)



● HCl

L4 ANSWER 130 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 22 Apr 2001
ACCESSION NUMBER: 1966:27498 CAPLUS
DOCUMENT NUMBER: 64:27498
ORIGINAL REFERENCE NO.: 64:5069d
TITLE: A new synthesis of benzimidazoles and aza-analogs
AUTHOR(S): Ridley, H. F.; Spickett, R. G. W.; Timmis, G. M.
CORPORATE SOURCE: Smith Kline French Labs. Ltd., Welwyn Garden City, UK
SOURCE: Journal of Heterocyclic Chemistry (1965), 2(4), 453-6
CODEN: JHTCAD; ISSN: 0022-152X
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 64:27498
AB A new procedure for the preparation of benzimidazoles and aza analogs from o-diamines and aldehyde bisulfite adducts is described.
IT **4946-05-8**, Benzimidazole, 1-[2-(diethylamino)ethyl]-2-phenyl-5-(trifluoromethyl)-, dihydrochloride
(preparation of)
RN 4946-05-8 CAPLUS
CN Benzimidazole, 1-[2-(diethylamino)ethyl]-2-phenyl-5-(trifluoromethyl)-, dihydrochloride (7CI, 8CI) (CA INDEX NAME)



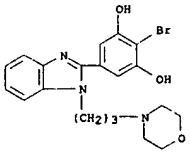
●2 HCl

L4 ANSWER 131 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 22 Apr 2001
ACCESSION NUMBER: 1965:494764 CAPLUS
DOCUMENT NUMBER: 63:94764
ORIGINAL REFERENCE NO.: 63:17370d-g
TITLE: Two-component diazo materials giving images of improved stability
PATENT ASSIGNEE(S): Kalle A.-G.
SOURCE: 11 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

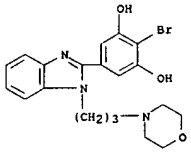
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 6414440		19650624	NL	
PRIORITY APPLN. INFO.:			DE	19631223

GI For diagram(s), see printed CA Issue.
AB The materials which are described contain a diazotized p-phenylenediamine and at least one 2-(3,5-dihydroxyphenyl)benzimidazole compound of general formula I, where R1 is H or a substituted or unsubstituted alkyl group, R2 is H, F, Cl, Br, or an alkyl or alkoxy group, and R3 is H or Br. For example, a copying paper precoated with colloidal silicic acid and poly(vinyl acetate) was coated with 100 ml. of a solution containing citric acid (4 g.), boric acid (2 g.), concentrated HCl (0.5 ml.), thiourea (4 g.), 1,3,4-naphthalenetrisulfonic acid (3 g.), 1 g. 4-diazonium diethylaminobenzene chloride-ZnCl2, and 1-(γ-morpholinopropyl)-2-(4-bromo-3,5-didroxyphenyl) benzimidazole (2 g.). The coated paper was exposed and then developed with NH3 to give a reddish blue image on a pure white background. The benzimidazole derivative used in this example was prepared by dissolving 4-bromo-3,5-diacetoxybenzoyl chloride (33.5 g.) in dioxane (100 ml.), and slowly adding the solution obtained to a solution of N-(γ-morpholinopropyl)-o-phenylenediamine (21.5 g.) in dioxane (40 ml.) containing pyridine (8 ml.) at 30-40°. The dioxane was removed from the mixture by distillation, and the sirupy residue was dissolved in 2N NaOH. The saponified product (m.p. 115° with decomposition) was precipitated with HOAc, and 20 g. of the solid were heated with 30% HCl at 90° for 30 min. and then boiled for 10 min. to give a colorless hydrochloride, m. 255° (decomposition) (H2O), free base m. 208-9° (decomposition) (PhCl).
IT **5284-57-1**, Resorcinol, 2-bromo-5-[1-(3-morpholinopropyl)-2-benzimidazolyl]- **100408-07-9**, Resorcinol, 2-bromo-5-[1-(3-morpholinopropyl)-2-benzimidazolyl]-, hydrochloride
(in light-sensitive composition for diazotype process)
RN 5284-57-1 CAPLUS
CN Resorcinol, 2-bromo-5-[1-(3-morpholinopropyl)-2-benzimidazolyl]- (7CI, 8CI) (CA INDEX NAME)

L4 ANSWER 131 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 100408-07-9 CAPLUS
CN Resorcinol, 2-bromo-5-[1-(3-morpholinopropyl)-2-benzimidazolyl]-, hydrochloride (7CI) (CA INDEX NAME)



●x HCl

L4 ANSWER 132 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 22 Apr 2001
ACCESSION NUMBER: 1963:462362 CAPLUS
DOCUMENT NUMBER: 59:62362
ORIGINAL REFERENCE NO.: 59:11505e-h,11506a-e
TITLE: Light-sensitive N-alkyl-2-benzimidazolylphenyl 1,2-quinone diazide sulfonates
INVENTOR(S): Sues, Oskar
PATENT ASSIGNEE(S): Azoplate Corp.
SOURCE: 10 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3050389		19620821	US	
PRIORITY APPLN. INFO.:			DE	19570803

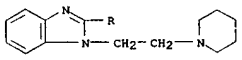
AB A series of light-sensitive esters was prepared by the condensation of 1,2-benzoquinone 2-diazide sulfonyl chlorides or 1,2-naphthoquinone 2-diazide sulfonyl chlorides with suitable 2-(hydroxyaryl)benzimidazoles or 2-(hydroxyaryl)naphthoimidazoles. The new esters are useful for the production of light-sensitive layers on paper or Al foil support by standard procedures. The appropriate o-diamine of the benzene or naphthalene series condensed in alc. solution with a suitable aromatic hydroxybenzaldehyde in the presence of air or PhNO2 (I) or m-C6H4(NO2)2 (II) yielded the corresponding benz- or naphthimidazole; in this manner were prepared the following compds. (diamine and aromatic hydroxyaldehyde used, added oxidant, and m.p. of product given): 1-methyl-2-(o-hydroxyphenyl)benzimidazole (III), o-MeNHC6H4NH2 (IV), o-HOC6H4CHO (V), II, 164-5°; p-isomer (VI) of III, IV, p-HOC6H4CHO (VII), air, 283-5°; 1-methyl-2-(4-hydroxy-3-methoxyphenyl)benzimidazole (VIII), IV, 4,3-HO(MeO)C6H3CHO (IX), I, 203-5°; 1-Et analog (X) of VI, o-EtNHC6H4NH2 (XI), VII, air, 242-5°; 1-Pr analog (XII) of VI, o-PrNHC6H4NH2 (XIII), VII, air, 239-40°; 1-Bu analog (XIV) of VI, o-BuNHC6H4NH2 VII, air, 168-70°; 6-MeO derivative (XV) of VI, 4,5-H2N(MeNH)C6H3OMe, VII, air, 263-6°; 1-ethyl-2-(p-hydroxyphenyl)-6-methylbenzimidazole (XVI), 4,5-H2N(EtNH)C6H3Me, VII, air, 287-9°; 5-NO2 derivative (XVII) of VI, 3,4-H2N(MeNH)C6H3NO2, VII, air, 112-13°; 1-methyl-2-(3-hydroxy-4-methoxyphenyl)benzimidazole (XVIII), IV, 3,4-HO-(MeO)C6H3CHO (XIX), I, 194-5°; 1-(2-hydroxyethyl)-2-(p-hydroxyphenyl)benzimidazole (XX), o-HOCH2CH2NHC6H4NH2 (XXI), VII, air, 196-8°; 1-PhCH2 analog (XXII) of VIII, o-PhCH2NHC6H4NH2 (XXIII), VII, I, 232-4°; 1-Ph analog (XXIV) of VIII, o-PhNHC6H4NH2 (XXV), VII, I, 280-1°; 1-methyl-2-(4-hydroxynaphthyl)benzimidazole (XXVI), IV, 4-HOC10H6CHO, air, 310-12°; bis[1-methyl-2-(p-hydroxyphenyl)-5-benzimidazolyl]methane (XXVII), [3,4-H2N(MeNH)C6H3]2CH2 VII, air, 322-6°; 1-methyl-2-(o-hydroxynaphthyl)benzimidazole (XXVIII), IV, 2-HOC10H6CHO, I, 289-90°; 1,2-bis[2-(p-hydroxyphenyl)-1-benzimidazolyl]ethane (XXIX), (o-H2NC6H4NHCH2)2, VII, I, 403-4°; 1-(2-piperidinoethyl)-2-(4-hydroxy-3-methoxyphenyl)benzimidazole (XXX), N-(2-piperidinoethyl)-o-phenylenediamine, IX, II, 165-7% ; 1-(p-dimethylaminophenyl)-2-(4-hydroxy-3-methoxyphenyl)benzimidazole (XXXI), o-H2NC6H4NHC6H4NMe2-p, IX, I, 225-6°; m-isomer (XXXII) of VI, IV, m-HOC6H4CHO (XXXIII), II, 187°; 1-methyl-2-(o-hydroxyphenyl)naphtho[1',2':4,5]imidazole (XXXIV), 1,2-H2NC10H6NHMe, V, II, 157-8°; 1-(2-hydroxyethyl)-2-(4-hydroxy-3-methoxyphenyl)benzimidazole (XXXV), XXI, IX, II, - (HCl salt m. 250-2°); 2-(3,4-HO(MeO)C6H3] analog (XXXVI) of XXV, XXI, XIX, II, -

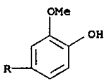
L4 ANSWER 132 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
(HCl salt m. 219-20°); 1-PhCH2 analog (XXXVII) of III, XXIII, V, II, 177-8°; 6-Me deriv. (XXXVIII) of III, 4,5-H2N(MeNH)C6H3Me, V, II, 144°; 5-Me deriv. (XXXIX) of III, 3,4-H2N(MeNH)C6H3Me, V, II, 184-5°; 1-Ph analog (XL) of III, XXV, V, II, 106-7°; 1-Et analog (XLI) of III, XI, V, II, 129°; 1-Pr analog (XLII) of III, XII, V, II, 130-1°; 5-NO2 deriv. (XLIII) of III, 3,4-H2N(MeNH)C6H3NO2, V, II, 182-5°; 1-ethyl-2-(o-hydroxyphenyl)-6-methylbenzimidazole (XLIV), 4,5-H2N(EtNH)C6H3Me, V, II, 133-6°; 6-MeO deriv. (XLV) of III, 4,5-H2N(MeNH)C6H2OMe, V, II, 153-4°; 6-Cl deriv. (XLVI) of III, 4,5-H2N(MeNH)C6H3Cl, V, II, 139-41°; 2-(o-HOC6H4) analog (XLVII) of XX, XXI, V, II, 157-8°; 1-methyl-2-(o-hydroxyphenyl)naphtho[2',3':4,5]imidazole (XLVIII), 2,3-H2NC10H6NHMe, V, II, 155-6°; 1-methyl-2-(2,4-dihydroxyphenyl)benzimidazole (XLIX), IV, 2,4-(HO)2C6H3CHO, II, 122-38°; bis[1-methyl-2-(o-hydroxyphenyl]naphtho][1,2:7,8]imidazole (L), 1,8,2,7-(H2N)2 C10H4(NHMe)2, V, air, 330-5°, 2-(o-HOC16H4) isomer (LI) of XXVII, [3,4-H2N(MeNH)C6H3]2-CH2, V, II, 264°. By treatment of the appropriate hydroxyarylbenz- or naphthimidazole with a suitable 1,2-quinone 2-diazide sulfonyl chloride were prepd. the corresponding sulfonates (acid chloride and parts by wt., imidazole deriv. and parts by wt., and m.p. of resulting ester given): 1,2-naphthoquinone 2-diazide 4-sulfonyl chloride (LII), 6, III, 4.5, 142-4°; LII, 1.5, VI, 1.1, 175-6°; 5-SO2Cl isomer (LIII) of LII, 0.8, VI, 0.6, 105-8°; LII, 3, VIII, 2.54, 157-62°; LIII, 1.5, VIII, 1.27, 134-6°; LII, 1.5, X, 1.2, 165-7°; LII, 3, XII, 2.5, 170-2°; LII, 3, XIV, 2.7, 132-4°; LIII, 3, XIV, 2.7, 163-5°; LII, 3, XV, 2.5, 135-40°; LII, 3, XVI, 2.5, 184-5°; LIII, 2, XVII, 2.7, 133-5°; LII, 2, XVIII, 2.5, 215-20°; LIII, 0.8, III, 0.5, 143-5°; LII, 1.9, XX, 1.65, 16,5-7°; LII, 3, XXII, 3, 175-80°; LIII, 3, XXII, 3, 178-80°; LIII, 3, XXIV, 3, 97°; LII, 2, XXIV, 3, 90-110°; LII, 1.8, XXVI, 1.4, 120°; LII, 0.6, XXVIII, 0.6, 119-20°; LIII, 1.3, XXVII, 0.9, 150°; LIII, 3, XXIX, 2.23, 225-30°; LII, 2.3, XXXI, 2.7, 140-2°; 6-SO2Cl isomer (LIV) of LII, 2.7, VIII, 2, 128-30°; 1,2-benzoquinone 2-diazide 4-sulfonyl chloride (LV), 2.3, VIII, 2.5, 115-19°; LV, 2.3, VI, 2.2, 80-4°; LII, 2, XXX, 3.5,110-15°; LII, 3, XXXII, 2.25, 160-5°; LIII, 2, XXXIV, 2.7, 175-8°; LII, 2, XXXV, 3.2, 169-70°; LIII, 2, XXXV, 3.2, 137-8°; LII, 3, XXXVI 3.2,170°; LIII, 3, XXXVI, 3.2, 162-4°; LII, 3, XXXVII, 3,148-50°; LIII, 3, XXXVII, 3,149-50°; LII, 2, XXXVIII, 2.4, 115-16°; LII, 2, XXXIX, 2.4, 176-8°; LII, 2, XL, 1.9, 174°; LII, 3, XLI, 2.4, 146-8°; LII, 3, XLII, 2.5, 114-16°; LIII, 3, XXXII, 2.25, 170°; LIII, 3, XLIII, 2.7, 203-5°; LII, 3, XLIV, 2.5, 112-15°; LII, 3, XLV, 2.5, 170-1°; LII, 3, XLVI, 2.6, 126-8°; LII, 1.65, XLVII, 1.45, 153-4°; LII, 3, XLVIII, 2.7, 159-61°; LV, 2.3, XLVIII, 2.7, 125-30°; LII, 3, XLIX, 1.2, 170°; LII, 1.5, L, 1.05, 150-5°; LII, 3, LI, 2.3, 235-40°.

IT **94961-54-3**, Phenol, 2-methoxy-4-[1-(2-piperidinoethyl)-2-benzimidazolyl]- **96590-66-8**, Phenol, 2-methoxy-4-[1-(2-piperidinoethyl)-2-benzimidazolyl]-, 3-diazo-3,4-dihydro-4-oxo-1-naphthalenesulfonate **107062-67-9**, 1-Naphthalenesulfonic acid, 6-diazo-5,6-dihydro-5-oxo-, ethylenebis(1,2-benzimidazolediyl-p-phenylene) ester, hydrochloride **120335-74-2**, Phenol, 4,4'-(ethylenedi-1,2-benzimidazolediyl)di-, bis(6-diazo-5,6-dihydro-5-oxo-1-naphthalene-sulfonate)
(preparation of)

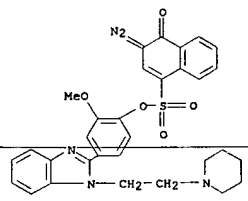
RN 94961-54-3 CAPLUS
CN Phenol, 2-methoxy-4-[1-(2-piperidinoethyl)-2-benzimidazolyl]- (7CI) (CA INDEX NAME)

L4 ANSWER 132 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



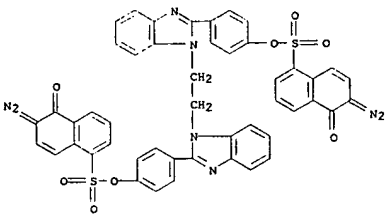


RN 96590-66-8 CAPLUS
CN 1-Naphthalenesulfonic acid, 3-diazo-3,4-dihydro-4-oxo-, 2-methoxy-4-[1-(2-piperidinoethyl)-2-benzimidazolyl]phenyl ester (6CI, 7CI) (CA INDEX NAME)



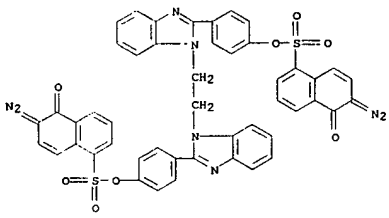
RN 107062-67-9 CAPLUS
CN 1-Naphthalenesulfonic acid, 6-diazo-5,6-dihydro-5-oxo-, ethylenebis(1,2-benzimidazolediyl-p-phenylene) ester, hydrochloride (7CI) (CA INDEX NAME)

L4 ANSWER 132 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



●x HCl

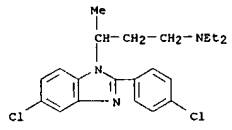
RN 120335-74-2 CAPLUS
CN 1-Naphthalenesulfonic acid, 6-diazo-5,6-dihydro-5-oxo-, ethylenebis(1,2-benzimidazolediyl-p-phenylene) ester (6CI) (CA INDEX NAME)



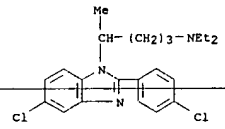
L4 ANSWER 133 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 22 Apr 2001
ACCESSION NUMBER: 1963:428514 CAPLUS
DOCUMENT NUMBER: 59:28514
ORIGINAL REFERENCE NO.: 59:5149g-h,5150a-c
TITLE: Benzimidazoles
AUTHOR(S): Knobloch Wolfgang, I.; Schaefer, Helmut
SOURCE: Journal fuer Praktische Chemie (Leipzig) (1962), 17(3-4), 187-98
CODEN: JPCEAO; ISSN: 0021-8383
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
OTHER SOURCE(S): CASREACT 59:28514
GI For diagram(s), see printed CA Issue.
AB 1-Diethylamino-2-aminopropane (60 g.), 88 g. 2,5-Cl2C2H3NO2, 0.4 g. Cu powder, 36 g. Na2CO3, and 260 cc. PhNO2 was refluxed 5 hrs. at 130°, 1 hr. at 140°, the mixture cooled, diluted with 500 cc. Et2O, and extracted with 500 cc. 5NHCl to give 57.3 g. I (R = NO2, n = 1) (Ia), b3 167-8°; picrate m. 158-60°. Reduction of Ia with SnCl2.2H2O and 7N HCl gave 82.5% I (R = NH2, n = 1) (II), b8 152-6°, m. 40-3°. Similarly were prepared the following I (R, n, b3, and m.p. of derivative where given): NO2, 2, 179-82°; NO2, 3 (III), 196-7°; NH2, 2, 161-3°, 140.5° (tri-HCl salt;) NH2, 3, 175-7°. Heating II 6 hrs. with 88% HCO2H gave 84% IV (R = NH2, n = 1), b3 178-3°; di-HCl salt m. 238-43°; dipicrate m. 183-5°. II and Ac2O refluxed 45 min. gave 41% IV (R = Me, n = 1); dipicrate m. 160-2°. III (4.05 g.) and 2.3 g. glycolic acid was heated 2 hrs. at 190-200° to give 72% IV (R = CH2OH, n = 2), b3 195-205°; di-HCl salt m. 201-16°; dipicrate m. 198-200°. Treating 3.9 g. III and 2.4 g. ClCH2CO2H in 15 cc. 7N HCl gave 39% IV (R = CH2Cl, n = 2); dipicrate m. 218-22°. Ia (3.85 g.) and 4.2 g. PhCH2CO2H kept 1.5 hrs. at 180° and 30 min. at 200° gave 86% IV (R = PhCH2, n = 1), b3 215-20°; HCl salt m. 64-72°; dipicrate m. 213-18°. Similarly were prepared the following IV (R, n, b3, m.p. HCl salt and picrate given): H, 2, 185-90°, -, 202-3°; H, 3, 195-8°, -, 165-7°; Me, 2, -, -, 252-4°; Me, 3, -, -, 200-3°; CH2OH, 1, 170-80° (m. 45-9°), 159-67°, 188-92°; CH2OH, 3,220-5°, 1513°, 177°; CH2Cl, 3, -, -, 191-3°; PhCH2, 2, 210-18°, -, 226-30°; PhCH2, 3, 220-7°, -, 182-5°; p-MeOC6H4CH2, 1, 230-5°, -, 217-22°; p-MeOC6H4CH2, 2,240-5°, -, 199-204°; p-MeOC6H4CH2, 3, 240-50°, -, 185-7°; Ph, 1, 237-40°, 221-4°, -; Ph, 2, 220-40°, -, -; Ph 3, 260-5°, -, 192-5°; p-ClC6H4, 1, 240-5°, 174-83°, -; p-ClC6H4, 2, 255-60°, -, 83-7°; p-ClC6H4, 3, 270-5°, -, 184-203°. The ultraviolet absorption maximum and min. of IV in MeOH and 0.1N HCl were recorded as well as the dissociation consts.
IT **95005-44-0**, Benzimidazole, 5-chloro-2-(p-chlorophenyl)-1-[3-(diethylamino)-1-methylpropyl]- **95140-02-6**, Benzimidazole, 5-chloro-2-(p-chlorophenyl)-1-[4-(diethylamino)-1-methylbutyl]- **95619-70-8**, Benzimidazole, 5-chloro-2-(p-chlorophenyl)-1-[2-(diethylamino)-1-methylethyl]-, dihydrochloride **95619-71-9**, Benzimidazole, 5-chloro-2-(p-chlorophenyl)-1-[2-(diethylamino)-1-methylethyl]- **96076-12-9**, Benzimidazole, 5-chloro-2-(p-chlorophenyl)-1-[3-(diethylamino)-1-methylpropyl]-, picrate **96673-83-5**, Benzimidazole, 5-chloro-2-(p-chlorophenyl)-1-[4-(diethylamino)-1-methylbutyl]-, dipicrate **97572-68-4**, Benzimidazole, 5-chloro-1-[4-(diethylamino)-1-methylbutyl]-2-phenyl-

L4 ANSWER 133 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
97572-69-5, Benzimidazole, 5-chloro-1-[4-(diethylamino)-1-methylbutyl]-2-phenyl-, dipicrate **98067-91-5**, Benzimidazole, 5-chloro-1-[3-(diethylamino)-1-methylpropyl]-2-phenyl-
(prepn. of)

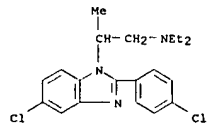
RN 95005-44-0 CAPLUS
CN Benzimidazole, 5-chloro-2-(p-chlorophenyl)-1-[3-(diethylamino)-1-methylpropyl]- (7CI) (CA INDEX NAME)



RN 95140-02-6 CAPLUS
CN Benzimidazole, 5-chloro-2-(p-chlorophenyl)-1-[4-(diethylamino)-1-methylbutyl]- (7CI) (CA INDEX NAME)



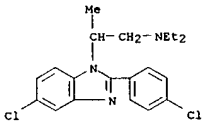
RN 95619-70-8 CAPLUS
CN Benzimidazole, 5-chloro-2-(p-chlorophenyl)-1-[2-(diethylamino)-1-methylethyl]-, dihydrochloride (7CI) (CA INDEX NAME)



●2 HCl

RN 95619-71-9 CAPLUS
CN Benzimidazole, 5-chloro-2-(p-chlorophenyl)-1-[2-(diethylamino)-1-methylethyl]- (7CI) (CA INDEX NAME)

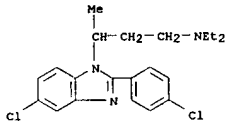
L4 ANSWER 133 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 96076-12-9 CAPLUS
CN Benzimidazole, 5-chloro-2-(p-chlorophenyl)-1-[3-(diethylamino)-1-methylpropyl]-, picrate (7CI) (CA INDEX NAME)

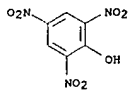
CM 1

CRN 95005-44-0
CMF C21 H25 Cl2 N3



CM 2

CRN 88-89-1
CMF C6 H3 N3 O7

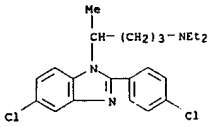


RN 96673-83-5 CAPLUS
CN Benzimidazole, 5-chloro-2-(p-chlorophenyl)-1-[4-(diethylamino)-1-methylbutyl]-, dipicrate (7CI) (CA INDEX NAME)

CM 1

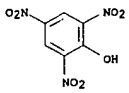
CRN 95140-02-6
CMF C22 H27 Cl2 N3

L4 ANSWER 133 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

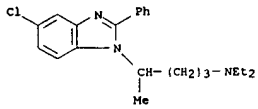


CM 2

CRN 88-89-1
CMF C6 H3 N3 O7



RN 97572-68-4 CAPLUS
CN 1H-Benzimidazole-1-butanamine, 5-chloro-N,N-diethyl-δ-methyl-2-phenyl- (9CI) (CA INDEX NAME)

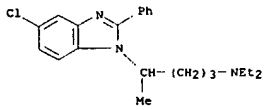


RN 97572-69-5 CAPLUS
CN Benzimidazole, 5-chloro-1-[4-(diethylamino)-1-methylbutyl]-2-phenyl-, dipicrate (7CI) (CA INDEX NAME)

CM 1

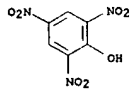
CRN 97572-68-4
CMF C22 H28 Cl N3

L4 ANSWER 133 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

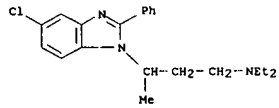


CM 2

CRN 88-89-1
CMF C6 H3 N3 O7



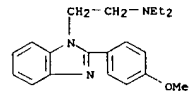
RN 98067-91-5 CAPLUS
CN Benzimidazole, 5-chloro-1-[3-(diethylamino)-1-methylpropyl]-2-phenyl- (7CI) (CA INDEX NAME)



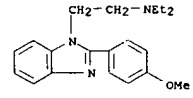
L4 ANSWER 134 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 22 Apr 2001
ACCESSION NUMBER: 1963:428513 CAPLUS
DOCUMENT NUMBER: 59:28513
ORIGINAL REFERENCE NO.: 59:5149d-g
TITLE: Synthesis of 2-[o(m and p)-methoxyphenyl]benzimidazoles with the β-dialkylaminoethyl group in position 1
AUTHOR(S): Sawlewicz, Jozef; Bukowski, Ludwik; Rogaczewska, Maria
CORPORATE SOURCE: Med. Acad., Gdansk, Pol.
SOURCE: Dissertationes Pharmaceuticae (1962), 14, 297-303
CODEN: DIPHAH; ISSN: 0301-1615
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
GI For diagram(s), see printed CA Issue.
AB A series of 1-(β-dialkylaminoethyl)-2-(methoxyphenyl)benzimidazoles (I) was prepared by condensing the appropriate 2-(methoxyphenyl)benzimidazoles (II) and Cl(CH2)2NR2.HCl (III) with NaNH2. Thus, 0.01 mole each of II and III and 3.5 g. NaNH2, were refluxed 5 hrs. in anhyd, dioxane. Distillation of the solvent gave I. Hydrochlorides of I were prepd, by saturating a C6H6 solution with dry HCl. The following results were obtained [position of OMe in I and II, R, m.p. of I (recrystn. solvent), % yield of I, m.p. of picrate of I (recrystn. solvent), and m.p. of hydrochloride of I (recrystn. solvent)given]: o, Et, sbd;(oil), 210-12° (Me2CO), 226-8° (EtOH); m, Et, -(oil), 83, 188-90° (Me2CO), 230-40° (EtOH); p, Et, 70-2° (C6H6-ligroine), 82.5, - (-), 150-3° and 233-5° (-); o, Me, -(oil), 69, 204-6° (Me2CO), 162-4° (EtOH); m, Me, -(oil), 68, 229-31° (H2O-Me2CO), 213-14° (EtOH); p, Me, 97-9° (C6H6-ligroine), 73.7, - (-), 174-6° and 217-18° (-). Reaction of 1 g. of a 1-(β-hydroxyethyl)-2-(methoxyphenyl)benzimidazole (IV) with 6 g. SOCl2 at reflux 4 hrs., followed by distn. of the excess SOCl2, treatment of the residue several times with C6H6, evapn, to dryness, solution in H2O, and treatment with NH3 solution, gave the following 1-βchtoroethyl)-2-(methoxyphenyl)benzimidazoles (V) [position of OMe in IV and V, m.p. (recrystn. solvent), and % yield given]: o, 112-13° (C6H6-ligroine), 90; m, 75-7° (Et2O-ligroine), 77.3; p, 93-4° (C6H6-ligroine), 97. Attempted prepn, of I (R = Et) by reaction of V with Et2NH at 160° for 12 hrs. gave no reaction.
IT **5322-99-6**, Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(p-methoxyphenyl)- **5323-00-2**, Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(p-methoxyphenyl)-, hydrochloride **16861-71-5**, Benzimidazole, 1-[2-(dimethylamino)ethyl]-2-(p-methoxyphenyl)- **95167-32-1**, Benzimidazole, 1-2-(dimethylamino)ethyl-2-(m-methoxyphenyl)- **95167-33-2**, Benzimidazole, 1-[2-(dimethylamino)ethyl]-2-(o-methoxyphenyl)- **96064-04-9**, Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(m-methoxyphenyl)- **96064-05-0**, Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(o-methoxyphenyl)- **98780-59-7**, Benzimidazole, 1-[2-(dimethylamino)ethyl]-2-(p-methoxyphenyl)-, hydrochloride **98780-60-0**, Benzimidazole, 1-[2-(dimethylamino)ethyl]-2-(o-methoxyphenyl)-, hydrochloride **98780-61-1**, Benzimidazole, 1-2-(dimethylamino)ethyl-2-(m-methoxyphenyl)-, hydrochloride **100337-81-3**, Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(o-methoxyphenyl)-, hydrochloride **100337-82-4**, Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(m-methoxyphenyl)-, hydrochloride
(preparation of)
RN 5322-99-6 CAPLUS
CN Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(p-methoxyphenyl)- (7CI, 8CI) (CA INDEX NAME)

L4 ANSWER 134 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

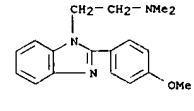


RN 5323-00-2 CAPLUS
CN Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(p-methoxyphenyl)-, hydrochloride (7CI, 8CI) (CA INDEX NAME)

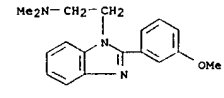


● HCl

RN 16861-71-5 CAPLUS
CN Benzimidazole, 1-[2-(dimethylamino)ethyl]-2-(p-methoxyphenyl)- (7CI, 8CI) (CA INDEX NAME)

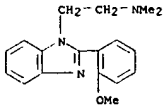


RN 95167-32-1 CAPLUS
CN Benzimidazole, 1-[2-(dimethylamino)ethyl]-2-(m-methoxyphenyl)- (7CI) (CA INDEX NAME)

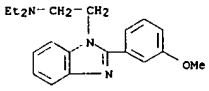


RN 95167-33-2 CAPLUS
CN Benzimidazole, 1-[2-(dimethylamino)ethyl]-2-(o-methoxyphenyl)- (7CI) (CA INDEX NAME)

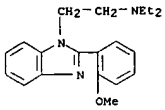
L4 ANSWER 134 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



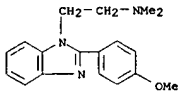
RN 96064-04-9 CAPLUS
CN Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(m-methoxyphenyl)- (7CI) (CA INDEX NAME)



RN 96064-05-0 CAPLUS
CN Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(o-methoxyphenyl)- (7CI) (CA INDEX NAME)



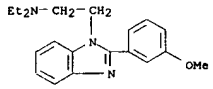
RN 98780-59-7 CAPLUS
CN Benzimidazole, 1-[2-(dimethylamino)ethyl]-2-(p-methoxyphenyl)-, hydrochloride (7CI) (CA INDEX NAME)



●x HCl

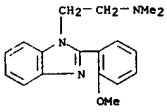
RN 98780-60-0 CAPLUS

L4 ANSWER 134 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



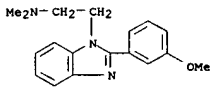
●x HCl

L4 ANSWER 134 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CN Benzimidazole, 1-[2-(dimethylamino)ethyl]-2-(o-methoxyphenyl)-, hydrochloride (7CI) (CA INDEX NAME)



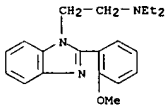
●x HCl

RN 98780-61-1 CAPLUS
CN Benzimidazole, 1-[2-(dimethylamino)ethyl]-2-(m-methoxyphenyl)-, hydrochloride (7CI) (CA INDEX NAME)



●x HCl

RN 100337-81-3 CAPLUS
CN Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(o-methoxyphenyl)-, hydrochloride (7CI) (CA INDEX NAME)



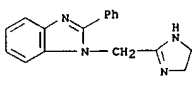
●x HCl

RN 100337-82-4 CAPLUS
CN Benzimidazole, 1-[2-(diethylamino)ethyl]-2-(m-methoxyphenyl)-, hydrochloride (7CI) (CA INDEX NAME)

L4 ANSWER 135 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 22 Apr 2001
ACCESSION NUMBER: 1963:73368 CAPLUS
DOCUMENT NUMBER: 58:73368
ORIGINAL REFERENCE NO.: 58:12574b-d
TITLE: Certain 1-imidazolinylmethyl-2-arylbenzimidazoles
INVENTOR(S): Schindler, Walter
PATENT ASSIGNEE(S): Geigy Chemical Corp.
SOURCE: 1 p.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
PATENT INFORMATION:

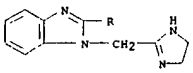
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3073841		19630115	US	
GB 950523			GB	
PRIORITY APPLN. INFO.:			CH	19600915

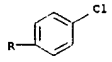
GI For diagram(s), see printed CA Issue.
AB Benzimidazoles substituted in the 1-position by the 2-imidazolin-2-ylmethyl radical have uterus-contracting properties. To o-C6H4(NH2)2 32 in 95 parts by volume of alc. 36 parts p-MeC6H4CHO was added dropwise at 0°, 90 parts PhNO2 added, the alc. and H2O distilled azeotropically, the mixture heated at the b.p. of PhNO2 15 min., cooled, an equivn amount of alc. HCl added, 2-(p-methylphenyl)benzimidazole-HCl filtered off, washed with anhydrous alc., suspended in H2O, concentrated Na2CO3 solution added, and the free base (I) filtered off, washed with, and recrystd. from, alc., m. 276-8°. I 6 was dissolved in 200 parts by volume PhMe, a suspension of 1.5 parts NaNH2 in PhMe added, the mixture refluxed 18 hrs., cooled to 50°, a C6H6 solution of the base from 7 parts 2-chloromethyl-2-imidazoline-HCl added, the whole heated 2 hrs. at 50-60°, refluxed 2 hrs., cooled, H2O added, extracted 3 times with 2N HOAc, made alkaline, and the resulting crystals recrystd. from EtOAc to give 1-(2-imidazolin-2-ylmethyl)-2-(p-methylphenyl)benzimidazole, m. 198-9°. Similarly prepared were 1-(2-imidazolin-2-ylmethyl)-2-phenylbenzimidazole (II), m. 175°, and 1-(2-imidazolin-2-ylmethyl)-2-(p-chlorophenyl)benzimidazole.
IT **93317-58-9**, Benzimidazole, 1-(2-imidazolin-2-ylmethyl)-2-phenyl- **93330-03-1**, Benzimidazole, 2-(p-chlorophenyl)-1-(2-imidazolin-2-ylmethyl)- **93880-46-7**, Benzimidazole, 1-(2-imidazolin-2-ylmethyl)-2-p-tolyl-
(preparation of)
RN 93317-58-9 CAPLUS
CN Benzimidazole, 1-(2-imidazolin-2-ylmethyl)-2-phenyl- (7CI) (CA INDEX NAME)



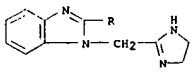
RN 93330-03-1 CAPLUS
CN Benzimidazole, 2-(p-chlorophenyl)-1-(2-imidazolin-2-ylmethyl)- (7CI) (CA INDEX NAME)

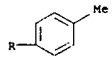
L4 ANSWER 135 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)





RN 93880-46-7 CAPLUS
CN Benzimidazole, 1-(2-imidazolin-2-ylmethyl)-2-p-tolyl- (7CI) (CA INDEX NAME)

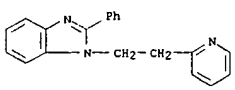




L4 ANSWER 136 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
heated 3 hrs. at 120° gave 2.6 g. VII (R = Me), b2 176-8°, nD 1.5509. I (R = Et) (1.9 g.), 2.6 g. VI, and 0.1 g. AcOH heated 3 hrs. at 120° gave 2.9 g. VII (R = Et), b2 172-4°, nD 1.5438. IV (R = H) (2.4 g.), 2.6 g. VI, and 0.1 g. AcOH heated 3 hrs. at 120°, the oily product (3.7 g.) pressed on clay, and recrystd. from Et2O gave 2.4 g. YCH2CH2N.CR:N.C:C.CH:CH.CH:CH (VIII) (R = H), m. 61°; HCl salt m. 144-5°; picrate m. 201°(decompn.). IV (R = Me) (2.6g.),2.6g. VI, and 0.1 g. AcOH heated 3 hrs. at 120° gave 3.4 g. VIII.H2O (R = Me), m. 73° (moist Et2O). IV (R = Et) (2.9 g.), 2.6 g. VI, and 0.1 g. AcOH heated 3 hrs. at 120° gave 1.9 g. VIII (R = Et), b1 207-10°, m. 57-8° (Et2O). Va (2.4 g.), 2.6 g. VI, and 0.1 g. AcOH heated 3 hrs. at 120° gave 2.4 g. YCH2CH2N.N:N.C:C.CH:CH.CH:CH, b1 185-9°, nD 1.5872. I (R = H) (1.4 g.), 2.9 g. 2,4-dimethyl-6-vinyl-pyridine (IX), and 0.1 g. AcOH heated 4 hrs. at 140° gave 3.0 g. WCH2CH2N.CR:N.CH:CH (X) (R = H) (W = 2,4-dimethyl-6-pyridyl throughout this abstr.), b2 184-6°, nD 1.5421. I (R = Me) (1.65 g.), 2.9 g. IX, and 0.1 g. AcOH heated 4 hrs. at 140° gave 3.0 g. X (R = Me), b2 181-3°, nD 1.5360. I (R = Et) (1.9 g.), 2.9 g. IX, and 0.1 g. AcOH heated 4 hrs. at 140° gave 3.3 g. X (R = Et), b2 178-80°, nD 1.5330. IV (R = H) (2.4 g.), 2.9 g. IX, and 0.1 g. AcOH heated 4 hrs. at 140° gave 2.3 g. WCH2CH2-N.CR:N.C:C.CH:CH.CH:CH (XI).H2O (R = H), m. 79-80°; HCl salt m. 216-17° (decompn.); methiodide m. 164°; picrate m. 210-12° (decompn.). Va (2.9 g.), 2.9 g. IX, and 0.1 g. AcOH heated 4 hrs. at 140° gave 2.2 g. WCH2CH2N.N:N.C:C.CH:CH.CH:CH (XII).H2O, m. 72-3° (H2O); anhyd. XII m. 51-2°; methiodide m. 167°. I (R = H) (1.4 g.), 2.3 g. 4-vinylpyridine (XIII), and 0.1 g. AcOH heated 4 hrs. at 130° gave 2.3 g. QCH2CH2N.CR:N.CH:CH (XIV) (R = H) (Q = 4-pyridyl throughout this abstr.), b1 184-6°, nD 1.5539; HCl salt m. 194-5°. I (R = Me) (1.65 g.), 2.3 g. XIII, and 0.1 g. AcOH heated 4 hrs. at 130° gave 2.3 g. XIV (R = Me), b1 173-6° nD 1.5480. I (R = Et) (1.9 g.), 2.3 g. XIII, and 0.1 g. AcOH heated 3 hrs. at 140° gave 2.5 g. XIV (R = Et), b1 169-71° nD 1.5371. IV (R = H) (2.4 g.), 2.3 g. XIII, and 0.1 g. AcOH heated 4 hrs. at 130°, the mixt. concd., the residue taken up in Et2O, and the soln. cooled gave 1.3 g. QCH2CH2N.CR:N.C:C.CH:CH.CH:CH (XV) (R = H), m. 101° (CCl4); picrate m. 211° (decompn.); reineckate m. 163° (decompn.). IV (R = Me) (2.6 g.), 2.3 g. XIII, and 0.1 g. AcOH heated 4 hrs. at 130° gave 1.6 g. XV (R = Me), m. 129° (CCl4 or Et2O); methiodide m. 182-3°. IV (R = Et) (2.9 g.), 2.3 g. XIII, and 0.1 g. AcOH heated 4 hrs. at 130° gave 1.3 g. XV (R = Et), m. 107° (CCl4); methiodide m. 164°.

IT **80144-55-4**, Benzimidazole, 2-phenyl-1-[2-(2-pyridyl)ethyl]- (preparation of)

RN 80144-55-4 CAPLUS
CN 1H-Benzimidazole, 2-phenyl-1-[2-(2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 136 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 22 Apr 2001
ACCESSION NUMBER: 1961:124810 CAPLUS
DOCUMENT NUMBER: 55:124810
ORIGINAL REFERENCE NO.: 55:23505b-i,23506a-g
TITLE: Pyridylethylations of imidazole, benzimidazole, and benzotriazole
AUTHOR(S): Profft, Elmar; Georgi, Wolfgang
CORPORATE SOURCE: Tech. Hochschule Chem., Leuna-Merseburg, Germany
SOURCE: Ann. (1961), 643, 136-44
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
GI For diagram(s), see printed CA Issue.
AB The condensations of some vinylpyridines with a number of heterocyclic compds. were investigated. (All nD at 20°). HN.CR:N.CH:CH (I) (R = H) (3.4 g.), 5.8 g. 2-vinylpyridine (II), and 0.3 g. AcOH heated 3 hrs. at 110°, the excess II and AcOH distilled in vacuo, and the residue fractionated twice in vacuo gave 7.0 g. ZCH2CH2N.CR:N.CH:CH (III) (R = H) (Z = 2-pyridyl throughout this abstract), b1 161-3°, nD 1.5490; di-HCl salt m. 202°; picrate m. 203°; reineckate m. 150° (decomposition). III (R = H) (2 g.) in 10 cc. AcOH heated 2 hrs. at 80° with 3 cc. 30% H2O2, the solution treated with an addnl. 3 cc. 30% H2O2, kept 3 hrs. at 80°, concentrated in vacuo, treated with hot saturated aqueous Na2CO3 until an alkaline reaction was obtained, and the product isolated with CHCl3 gave 1.3 g. N-oxide-H2O of III (R = H), m. 62° (C6H6 with C). I (R = Me) (1.65 g.), 2.3 g. II, and 0.1 g. AcOH heated 3 hrs. at 120° gave 2.6 g. III (R = Me), b3 179-81°, nD 1.5526; reineckate m. 165° (decomposition). I (R = Et) (1.9 g.), 2.3 g. II, and 0.1 g. AcOH heated 3 hrs. at 110° gave 2.6 g. III (R = Et), b1 158-60°, n20D 1.5429; HCl salt m. 197°. HN.CR:N.C:C.CH:CH.CH:CH (IV) (R = H) (5.9 g.), 5.8 g. II, and 0.3 g. AcOH heated 3 hrs. at 120° and the product rubbed with Et2O gave ZCH2CH2-N.CR:N.C:C.CH:CH.CH.CH (V) (R = H), m. 69° (Et2O), which recrystd. from H2O yielded 7.0 g. V.H2O (R = H), m. 54°; HCl salt m. 148°; picrate m. 213° (decomposition); reineckate m. 160° (decomposition). Oxidation of V (R = H) as above gave 52% N-oxide of V hydrate (R = H), m. 89° (C6H6), reconverted to V (R = H) with Fe and AcOH. IV (R = Me) (6.6 g.), 5.8 g. II, and 0.3 g. AcOH heated 3 hrs. at 120° gave 8.1 g. V.H2O (R = Me), m. 75° (Et2O or H2O), which lost its H2O after 5 days in vacuo over NaOH and then m. 62-3°; HCl salt m. 158°; picrate m. 215° (decomposition); reineckate m. 165° (decomposition); methiodide m. 162° (EtOH-Et2O). IV (R = Et) (2.9 g.), 2.3 g. II, and 0.1 g. AcOH heated 3 hrs. at 120° gave 56% V (R = Et), m. 72° (Et2O). IV (R = PhCH2) (4.2 g.), 2.3 g. II, and 0.1 g. AcOH heated to melting then heated 4 hrs. at 140° and the product crystallized from Et2O gave 4.6 g. crude V (R = PhCH2), m. 116° (CCl4 with C). IV (R = Ph) (3.9 g.), 2.3 g. II, and 2.4 g. AcOH heated 5 hrs. at 140°, concentrated, the residue taken up in CHCl3, the solution filtered, the filtrate evaporated, and the residue extracted with hexane with addition of C gave (in 2 crops) 2.2 g. V (R = PhCH2), m. 80-1°. Benzotriazole (Va) (2.4 g.), 2.3 g. II, and 0.1 g. AcOH heated 3 hrs. at 120° gave 2.4 g. ZCH2CH2N.N:N.C:C.CH:CH.CH:CH, nD 1.5918. I (R = H) (1.4 g.), 2.6 g. 2-methyl-6-vinylpyridine (VI), and 0.1 g. AcOH heated 3 hrs. at 120° gave 2.7 g. YCH2CH2N.CR:N.CH:CH (VII) (R = H) (Y = 2-methyl-6-pyridyl throughout this abstract), b2 174-6°, nD 1.5605; picrate m. 188°. I (R = Me) (1.65 g.), 2.6 g. VI, and 0.1 g. AcOH

L4 ANSWER 137 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 22 Apr 2001
ACCESSION NUMBER: 1961:110606 CAPLUS
DOCUMENT NUMBER: 55:110606
ORIGINAL REFERENCE NO.: 55:20737g-i,20738a-d
TITLE: Photosensitive materials for reproduction purposes
PATENT ASSIGNEE(S): Kalle & Co. Akt.-Ges.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 837368		19600615	GB	

AB In addition to the information given in Ger. 1,047,622 (CA 55, 4214d), the following substituted 2-(4-hydroxyphenyl)benzimidazoles were prepared from the appropriate ortho diamines (I) with p-HOC6H4CHO (II) in EtOH (substituent, m.p. of product, and I used are given): 1-Me (III), 283-5°, o-H2NC6H4NHMe (IIIa); 1-Et, (IV) 242-5°, o-H2NC6H4NHEt; 1-Pr (V), 239-40°, o-H2NC6H4NHPr; 1-Bu (VI), 168-70°, o-H2NC6H4NHBu; 1-Me, 6-MeO (VII), 263-6°, 4,5-H2N(MeNH)C6H3OMe; 1-Et, 6-Me (VIII), 287-9°, 4,5-H2N(EtNH)C6H3Me; 1-Me, 5-NO2 (IX), 112-13°, 3,4-H2N(MeNH)C6H3NO2; 1-HOCH2CH2 (X), 196-8°, o-HOCH2CH2NHC6H4NH2; 1-PhCH2 (XI), 232-4°, o-PhCH2NHC6H4NH2 (PhNO2 added); 1-Ph (XII), 280-1°, o-PhNHC6H4NH2 (PhNO2 added). Similarly were prepared the following compds. (m.p. and I and aromatic hydroxy aldehyde used are given): 1-methyl-2-(2-hydroxyphenyl)benzimidazole (XIII), 164-5°, IIIa, o-HOC6H4CHO (XIV) [m-C6H4(NO2)2 added]; 1-methyl-2-(4-hydroxy-3-methoxyphenyl)benzimidazole (XV), 203-5°, IIIa, 4,3-HO(MeO)C6H3CHO (XVI) (PhNO2 added); 1-methyl-2-(3-hydroxy-4-methoxyphenyl)benzimidazole (XVII), 194-5°, IIIa, 3,4-HO(MeO)C6H4CHO (PhNO2added); 1-methyl-2-(4-hydroxynaphthyl)benzimidazole (XVIII), 310-12°, IIIa, 4-HOC10H6CHO; 1-methyl-2-(2-hydroxynaphthyl)benzimidazole (XIX), 288-90°, IIIa, 2-HOC10H6CHO (PhNO2 added); bis[1-methyl-2-(4-hydroxyphenyl)-5-benzimidazolyl]methane (XX), 322-6°, [3,4-H2N(MeNH)C6H3]2, II; 1,2-bis[2-(4-hydroxyphenyl)benzimidazolyl]ethane (XXI), 403-4°, (o-H2NC6H4NHCH2)2, II (PhNO2 added); 1-(2-piperidinoethyl)-2-(4-hydroxy-3-methoxyphenyl)benzimidazole (XXII), 165-7°, N-(2-piperidinoethyl)-o-phenylenediamine, XVI [m-C6H4(NO2)2 added]; 1-(4-dimethylaminophenyl)-2-(4-hydroxy-3-methoxyphenyl)benzimidazole (XXIII), 225-6°, p-Me2NC6H4NHC6H4NH2-o, XVI (PhNO2 added); 1-methyl-2-(3-hydroxyphenyl)benzimidazole (XXIV), 187°, IIIa, m-C6H4CHO [m-C6H4(NO2)2 added]; 1-methyl-2-(2-hydroxyphenyl)naphtho[1',2':4,5]imidazole (XXV), 157-8°, 1,2-H2NC10H6NHMe, XIV [m-C6H4(NO2)2 added]. A series of light-sensitive esters (XXVI) described in Ger. patent 1,047,622 (loc. cit.) was prepared by the reaction of an appropriate sulfo-1,2-benzoquinone or sulfo-1,2-naphthoquinone diazide with a 2-hydroxyarylbenz- or naphthimidazole (quinone diazide used and amount in parts, imidazole derivative used and amount in parts, and m.p. of resulting XXVI given): 4-chlorosulfonyl-1,2-naphthoquinone 2-diazide (XXVII), 6, XIII, 4.5, 142-4°; XXVII, 1.5, III, 1.1, 175-6°; 5-SO2Cl isomer (XXVIII) of XXVII, 0.8, III, 0.6, 105-8°; XXVII, 3, XV, 2.54, 157-62°; XXVIII, 1.5, XV, 1.27, 134-6°; XXVII, 1.5, IV 1.2, 165-7°; XXVII, 3, V, 2.5, 170-2°; XXVII, 3, VI, 2.7, 132-4°; XXVIII, 3, VI, 2.7, 163-5°; XXVII, 3, VII, 2.5, 135-40°; XXVII, 3, VIII, 2.5, 184-5°; XXVIII, 3, IX, 2.7, 133-5°; XXVII 3, XVII, 2.5, 215-20°; XXVIII, 0.8, XIII, 0.5, 143-5°; XXVII, 1.9, X, 1.65, 165-7°; XXVII, 3, XI, 3, 175-80°; XXVIII, 3, XI, 3, 178-80°; XXVIII, 3, XII, 3, 97°; XXVII, 3, XII, 3, 90-110°; XXVII, 1.8, XVIII, 1.4,

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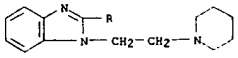
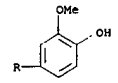
about 120°; XXVII, 0.6, XIX, 0.6, 119-20°; XXVIII, 1.3, XX, 0.9, about 150°; XXVIII, 3, XXI, 2.23, 225-30°; XXVII, 2.3, XXIII, 2.7, 140-2°; 6-SO2Cl isomer of XXVII, 2.7, XV, 2, 128-30°; XXVII, 2.2, XV, 2.5, 115-19°; XXVII, 2.3, III, 2.2, 80-4°; XXVII, 3, XXII, 3.5, 110-15°; XXVII, 3, XXIV, 2.25, 160-5°; XXVIII, 3, XXV, 2.7, 175-8°.

IT **94961-54-3**, Guaiacol, 4-[1-(2-piperidinoethyl)-2-benzimidazolyl]-
96590-66-8, Guaiacol, 4-[1-(2-piperidinoethyl)-2-benzimidazolyl]-, 3-diazo-3,4-dihydro-4-oxo-1-naphthalenesulfonate
(preparation of)

RN 94961-54-3 CAPLUS

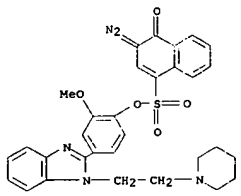
CN Phenol, 2-methoxy-4-[1-(2-piperidinoethyl)-2-benzimidazolyl]- (7CI) (CA INDEX NAME)





RN 96590-66-8 CAPLUS

CN 1-Naphthalenesulfonic acid, 3-diazo-3,4-dihydro-4-oxo-, 2-methoxy-4-[1-(2-piperidinoethyl)-2-benzimidazolyl]phenyl ester (6CI, 7CI) (CA INDEX NAME)



L4 ANSWER 138 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 22 Apr 2001

ACCESSION NUMBER: 1957:66594 CAPLUS

DOCUMENT NUMBER: 51:66594

ORIGINAL REFERENCE NO.: 51:12075h-i,12076a-h

TITLE: Benzimidazole analogs of biologically active indole derivatives

AUTHOR(S): Foster, R.; Ing, H. R.; Rogers, E. F.

CORPORATE SOURCE: Oxford Univ., UK

SOURCE: Journal of the Chemical Society, Abstracts (1957) 1671-4
CODEN: JCSAAZ; ISSN: 0590-9791

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

OTHER SOURCE(S): CASREACT 51:66594

AB To ascertain whether its pharmacol. activity resembles or differs from that of serotonin, the benzimidazole analog, 1-(2-aminoethyl)-6-hydroxybenzimidazole (6, 2-RR'-C7H3N2CH2CH2NH2, where R, R' = HO, H) (I) has been prepared Anhydrous CaCl2 (1.5 g.), 24 g. NH2CH2CH2NH2, and 15 g. 3,4-Cl(O2N)C6H3OMe stirred at 50°, heating discontinued to subsidence of reaction, the mixture heated 1 hr. on a steam bath, excess amine evaporated at 100° in vacuo, and the residue crystallized from 0.5N HCl yielded 76% N-(3-methoxy-6-nitrophenyl)ethylenediamine-HCl. The salt (14.5 g.) heated with 21 g. o-C6H4(CO)2O in 40 ml. pyridine 6 hrs. at 100°, the mixture diluted with H2O, and the solid product crystallized from dioxane yielded 96% 5-methoxy-2-nitro-N-(2-phthalimidoethyl)aniline, m. 208°. The phthalimido compound (21 g.) in 70 ml. 98-100° HCO2H and 250 ml. H2O stirred 2 hrs. at 100° with 35 g. Fe powder and dropwise addition of 30 ml. HCl, the cooled mixture extracted with CHCl3, and the gummy product crystallized from dilute alc. yielded 37% 6-methoxy-1-(2-phthalimidoethyl)benzimidazole 6, 2-RR'-C7H3N2CH2CH2N(CO)2C6H4, where R = MeO, R' = H) (II), m. 174°, reduced with N2H4 and converted to 1-(2-aminoethyl)-6-methoxybenzimidazole dipicrate, m. 214-18° (decomposition) (from dilute alc.). II (6 g.) boiled 5 hrs. with 100 ml. 46-8% HBr, the mixture diluted with 100 ml. H2O, filtered, the flitrate evaporated in vacuo at 100°, the dark violet residue taken up in NH4OH, evaporated at room temperature, precipitated with saturated aqueous picric acid, and the precipitate crystallized 4 times from 50% aqueous alc. gave I dipicrate, m. above 140° (decomposition). o-C6H4(CO)2NCH2CH2NHC6H4NO2-o, m. 176° (cf. Karrer and Naef, C.A. 31, 6928), (25 g.) refluxed 6 hrs. in EtOH with stirring in the presence of 25 g. Fe powder and dropwise addition of 12 ml. HCl, filtered hot, the flitrate diluted with excess H2O, and the crystalline product recrystd. from alc. gave o-R2NHC6H4NR2CH2CH2N(CO)2C6H4-o (R2 = H) (III), m. 124-5°, acetylated with Ac2O to III (R2 = Ac) (IIIa), m. 192-3° (from CHCl3-Me2CO). IIIa (3 g.) boiled 3 hrs. with 15 ml. POCl3, the solution diluted with H2O and extracted with CHCl3, the product crystallized from Me2CO-Et2O gave II (R,R' = H, Me) (IV), m. 170°. IV boiled 10 hrs. in alc. with an equal weight of N2H4, the mixture acidified and filtered, the filtrate extracted with CHCl3, the extract evaporated, the residue taken up in dilute HCl, the acid solution concentrated in vacuo, and the product crystallized twice from MeOH-Ac2O gave I (R,R' = H, Me) (V) di-HCl salt, m. above 250°. III (10 g.) heated 4 hrs. at 100° with 40 g. Bz O gave III (R = Bz) (VI), m. 197-8° (from CHCl3-Me2CO), converted by hydrazinolysis to I (R,R' =

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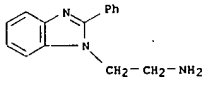
H, Ph), m. above 250° (from MeOH-Me2CO). A similar direct cyclization of IIIa to V did not occur. The stimulant action of serotin on isolated segments of sheep carotid artery was inhibited 150 times more by 5-methylamino- than by 5-amino-3-ethyl-2-methylindole (cf. Shaw and Woolley, C.A. 48, 9554d). The corresponding benzimidazole analogs were prepd. on the assumption that methylation of 2-methyl-5(6)-nitrobenzimidazole (VII) with Me2SO4 in the absence of alkali gave mainly 1,2-dimethyl-6-nitrobenzimidazole (cf. Philips, C.A. 25, 4265). VII (10 g., prepd. by nitration of 2-methylbenzimidazole) heated 7 hrs. at 140° with 7.5 ml. Et2SO4, the mixt. basified with 4N NaOH and filtered, the product (30-40%) crystd. from dil. alc. and C6H6 gave 1 part 1-ethyl-2-methyl-5-nitrobenzimidazole, m. 176°, and 8 parts 1-ethyl-2-methyl-6-nitrobenzimidazole, m. 142°, reduced 3 hrs. in alc. at 3 atm. over Raney Ni to 6-amino-1-ethyl-2-methyl-benzimidazole (VIII), m. 174° (from C6H6-petr. ether); monopicrate, m. 205°. VIII in 98-100% HCO2H distd. slowly 6 hrs. with dropwise addn. of PhMe with passage of distd. H2O and PhMe through a Dufton column, the mixt. dild. with H2O, the aq. layer sepd. and evapd. to dryness in vacuo, the residue taken up in H2O and basified with NaHCO3, the alk. soln. extd. with CHCl3, the dried ext. evapd., and the residue crystd. from EtCOMe gave 1-ethyl-6-formamido-2-methylbenzimidazole, m. 170°. The formyl compd. (0.25 g.) in 20 ml. tetrahydrofuran added slowly to 1 g. LiAlH4 in 20 ml. tetrahydrofuran, the stirred mixt. boiled 1.5 hrs., the excess LiAlH4 decompd., the product extd. with Et2O, the ext. evapd. and treated with picric acid gave 1-ethyl-2-methyl-6-methylaminobenzimidazole dipicrate, m. above 140° (decompn.) (from dil. alc.). As proof of structure attempts to replace the Cl atom in 2,5-Cl(NO2)C6H3NHEt by an NH2 group, or in 2,5-Cl(NO2)C6H3NH2 by NHEt failed.

IT **101091-09-2**, Benzimidazole, 1-(2-aminoethyl)-2-phenyl-
106882-87-5, Benzimidazole, 1-(2-aminoethyl)-2-phenyl-, dihydrochloride
(preparation of)

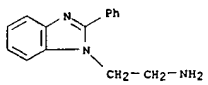
RN 101091-09-2 CAPLUS

CN Benzimidazole, 1-(2-aminoethyl)-2-phenyl- (6CI) (CA INDEX NAME)



RN 106882-87-5 CAPLUS

CN Benzimidazole, 1-(2-aminoethyl)-2-phenyl-, dihydrochloride (6CI) (CA INDEX NAME)



●2 HCl

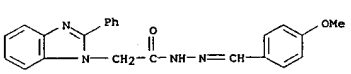
L4 ANSWER 139 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 22 Apr 2001
ACCESSION NUMBER: 1955:53503 CAPLUS
DOCUMENT NUMBER: 49:53503
ORIGINAL REFERENCE NO.: 49:10271a-i,10272a-d
TITLE: Benzimidazoles
AUTHOR(S): Jerchel, Dietrich; Kracht, Manfred; Krucker, Karl
CORPORATE SOURCE: Univ. Mainz, Germany
SOURCE: Ann. (1954), 590, 232-41
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
OTHER SOURCE(S): CASREACT 49:53503

AB cf. C.A. 47, 2752c. Heating a solution of 2.25 g. 2-thenaldehyde and 2.2 g. o-C6H4(NH2)2 in 3 cc. PhNO2 gives 95% 2-(α-thienyl)benzimidazole (I), m. 284° (from 60% alc.). Heating 3.6 g. 4,5,1,2-Cl2C6H2(NH2)2 and 2.25 g. 2-thenaldehyde in 4 cc. PhNO2 gives 92% 2-(α-thienyl)-5,6-dichlorobenzimidazole (II), m. 252° (from alc.-H2O); II.HCl (III), m. 278°. Heating 1 g. o-C6H4(NH2)2 and 1 g. 3-pyridinecarboxaldehyde in 20 cc. PhNO2 gives 39% 2-(β-pyridyl)benzimidazole (IV), m. 243° (from alc.-H2O); IV.HCl (V), m. 247° (from alc.-Et2O). Similarly 1 g. 4-pyridinecarboxaldehyde and 1 g. o-C6H4(NH2)2 heated in 1.5 cc. PhNO2 gives 0.8 g. 2-(γ-pyridyl)benzimidazole (VI), m. 217-18° (from alc.-H2O). Heating a solution of 4 g. (2-H2NC6H4CH:)2 and 2.2 g. BzH in PhNO2 gives 1.12 g. (20%) 2,4,5-triphenylimidazole (Lophin) (VII), m. 275° (from alc.-H2O). Refluxing 3.4 g. 1,3-dimethyl-4,5-diaminouracil (VIII) with 2.1 BzH gives 4.5 g. of the corresponding Schiff base, m. 273°, which, heated in 18 cc. PhNO2 at 200°, gives 3.2 g. (63%) 8-phenyltheophylline (IX), sublimes 225°. Refluxing 9.6 g. 5,6-diaminouracil-2H2SO4, 4.25 g. BzH, and 8 g. Ba(OAc)2 in 48 cc. PhNO2 gives (30%) 8-phenylxanthine (X), crystals from AcOH. Refluxing a solution of 1.5 g. dry CCl3CHO and 1.1 g. o-C6H4(NH2)2 in PhNO2 gives 52% dibenzimidazol (XI), m. 320° (from 1:3 alc.-H2O); XI.HCl (from EtOAc-Et2O). Heating a solution of 3 g. o-C6H4(NH2)2 and 3 g. BzH in 250 cc. C6H6 with 0.5 g. Pd on Kieselgel gives 95% 2-phenylbenzimidazole (XII), m. 291°. XII is also obtained from BzH.NaHSO3. In the same manner 3 g. p-ClC6H4CH:NC6H4NH2-o gives 2.5 g. 2-(p-chlorophenyl)benzimidazole (XIII), m. 294°. Similarly 3.39 g. 4,5,1,2-Cl2C6H2(NH2)2 and 2 g. BzH in 400 cc. dry C6H6 give 3.7 g. 2-phenyl-5,6-dichlorobenzimidazole (XIV), almost colorless needles, m. 218° (from MeOH). From 1.7 g. furfural and 2 g. o-C6H4(NH2)2 is obtained 3 g. 2-(2-furyl)benzimidazole (XV), m. 287°. From 2 g. 2-thenaldehyde and 2 g. o-C6H4(NH2)2 is obtained 3.3 g. 2-(2-thienyl)benzimidazole (XVI), m. 284°. From 1.8 g. 4,5,1,2-Cl2C6H2(NH2)2 and 1.1 g. 2-thenaldehyde is obtained 93% 2-(2-thienyl)-5,6-dichlorobenzimidazole (XVII), m. 252°. From 3 g. 2-pyridinecarboxaldehyde, 3 g. o-C6H4(NH2)2, and 1 g. Pd on Kieselgel is obtained 4.5 g. 2-(α-pyridyl)benzimidazole (XVIII), m. 220-21°. Similarly 3.6 g. IV, m. 245° and VI, m. 217-18°, are obtained. From 2.5 g. 2-quinoline carboxaldehyde and 1.75 g. o-C6H4(NH2)2 is obtained (50%) 2-(α-quinolyl)benzimidazole (XIX), m. 220-22° (from MeOH). From 1 g. BzH and 1.7 g. VIII is obtained 95% IX. A solution of 115 g. XIII in 1200 cc. boiling MeOH treated with 9 g. AgNO3 in 20 cc. NH4OH gives 18.6 g. of the Ag salt. A suspension of 10 g. of this Ag salt in 100 cc. xylene is dried by distilling off 75 cc. of the solvent and is then heated with 6 cc. BrCH2CO2Et, giving 4.4 g. Et 2-(p-chlorophenyl)benzimidazole-1-acetate (XX), m. 158° (from petr. ether). Treating 1 g. XX with 0.3 g. LiAlH4 in 350 cc. Et2O gives 0.83 g. 1-hydroxyethyl-2-(p-chlorophenyl)benzimidazole (XXI), white crystals, m. 170° (from MeOH). A soln. of 1 g. XX in 8 cc. AmOH treated with 2.5 g. Na gives 0.52 g. XXI. A soln. of 0.8 g. XXI in 20 cc. dry CHCl3 treated with a soln. of 1.5 g. PCl5 in 50 cc. CHCl3 gives the oily 1-(β-chloroethyl)-2-(p-chlorophenyl)benzimidazole (XXII). Warming XXII with 3 cc. pyrrolidine gives 48% 1-(β-pyrrolidinoethyl)-2-(p-chlorophenyl)benzimidazole (XXIII), colorless crystals, m. 84° (from 5:2 alc.-H2O). A soln. of 10 g. XII in 250 cc. MeOH treated with a soln. of 9 g. AgNO3 in 15 cc. H2O and 20 cc. concd. NH4OH gives 15 g. of the Ag salt. A suspension of 10 g. of this salt in 100 cc. dry xylene is dried by distilling off 70 cc. of solvent and then refluxed with 6 g. EtO2CCH2Br, giving 5.2 g. Et 2-phenylbenzimidazole-1-acetate (XXIV), m. 110-12° (from petr. ether). Heating 1.5 g. XXIV with excess N2H4.H2O gives 1.3 g. 2-phenylbenzimidazole-1-acethydrazide (XXV), m. 203-4° (from MeOH). Treating a soln. of 0.75 g. XXV in 20 cc. iso-PrOH with 3 g. p-MeOC6H4CHO gives 0.59 g. 2-phenylbenzimidazole-1-acetic acid p-methoxybenzylidenehydrazide (XXVI), yellow crystals, m. 260-61° (from MeOH). Treating 4.39 g. 2-benzylbenzimidazole (XXVII) with 3.58 g. AgNO3 as above gives 6.2 g. of the Ag salt. Treating 6.3 g. of this Ag salt with BrCH2CO2Et gives 1.2 g. Et 2-benzylbenzimidazole-1-acetate (XXVIII), m. 115-16° (from petr. ether); heating 0.93 g. XXVIII with 24% N2H4.H2O gives 0.65 g. hydrazide (XXIX), needles, m. 187-8° (from MeOH). XIV (3.67 g.) gives 4.8 g. (93%) XIV Ag salt. Treatment of 3.1 g. of this Ag salt with BrCH2CO2Et in xylene gives 1.7 g. Et 2-phenyl-5,6-dichlorobenzimidazole-1-acetate (XXX), m. 151° (from petr. ether, b. 90-100°); a soln. of 1.4 g. XXX in alc. treated with 5 cc. 24% N2H4.H2O gives 0.78 g. hydrazide (XXXI), sublimes 240°, m. 260-70°. In the above manner 1 g. XX treated with 4 cc. 24% N2N4.H2O gives 0.8 g. 2-(p-chlorophenyl)benzimidazole-1-acethydrazide (XXXII), m. 325° (from HCONMe2-H2O, 3:1). From 2.16 g. XV and 1.99 g. AgNO3 is obtained 3.23 g. of the Ag salt. Treating 3.2 g. of this Ag salt with BrCH2CO2Et gives 0.5 g. (17%) Et 2(α-furyl)benzimidazole-1-acetate (XXXIII), white needles, m. 100° (from petr. ether, b. 90-100°). Heating 0.5 g. XXXIII at 120° with 3 moles 24% NH2NH2.H2O gives 61 mg. hydrazide (XXXIV), white needles, m. 227-9°. The in vitro tuberculostatic activity is given of XXV, XXVI, XXIX, XXXI, XXXII, and XXXIV, as well as the influence of XVIII, IV, VI, and XIX on the growth of Trichophyton granulosum and Microsporon gypseum.

IT **347414-43-1**, p-Anisaldehyde, (2-phenyl-1-benzimidazolylacetyl)hydrazone
(preparation of)

RN 347414-43-1 CAPLUS

CN 1H-Benzimidazole-1-acetic acid, 2-phenyl-, [(4-methoxyphenyl)methylene]hydrazide (9CI) (CA INDEX NAME)



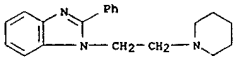
L4 ANSWER 140 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 22 Apr 2001
ACCESSION NUMBER: 1951:36138 CAPLUS
DOCUMENT NUMBER: 45:36138
ORIGINAL REFERENCE NO.: 45:6191g-i,6192a-b
TITLE: Some aminoalkyl derivatives of benzimidazole
AUTHOR(S): Sorm, F.; Urban, J.
CORPORATE SOURCE: Tech. Univ. Prague
SOURCE: Collection of Czechoslovak Chemical Communications (1950), 15, 196-203
CODEN: CCCCAK; ISSN: 0010-0765
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 45:36138

AB cf. C.A. 24, 1838. 2-(2-Aminoethyl)benzimidazole (I) is prepared in 3 ways. o-C6H4(NH2)2 (II) heated 1.5 hrs. at 145° with double its weight of BzNHCH2CH2CO2H gives 75% 2-(2-benzamidoethyl)benzimidazole (III), converted by EtOHHCl to the mono-HCl salt, m. 229-30°. III boiled 3 hrs. with 15% HCl gives 67% I.2HCl, softens at 280°, m. 325°. A solution of 4.5 g. II and 4.9 g. β-alanine in 40 cc. 15% HCl is evaporated and the residue heated 2 hrs. at 160° and extracted with MeOH, giving 35% I.2HCl, converted by NH4OH-CHCl3 to I, m. 160°. I rapidly absorbs CO2 from the air. Et 2-benzimidazolepropionate heated with N2H4.H2O in EtOH gives 87% of the hydrazide, decompose 256° (from MeOH); this with iso-AmNO2 in EtOH and HCl, followed by refluxing, gives 65% 2-[2-(carbethoxyamino)ethyl]benzimidazole-HCl, decompose 235-7°, which, refluxed 7 hrs. with concentrated HCl, yields 93% I.2HCl. 2-Phenylbenzimidazole (IV) (9 g.) in 150 cc. hot dioxane treated with 7.5 g. 2-(1-piperidyl)ethyl chloride and 3 g. NaNH2 and the mixture refluxed 6 hrs. gives, after filtration and solvent removal, 12.4 g. of a viscous oil, purified by crystallization and distillation to yield 1-(2-(1-piperidyl)ethyl]-2-phenylbenzimidazole (V), m. 64-7°; picrate, m. 151°; HCl salt, m. 229-31°; succinate, V.C4H6O4, m. 120-1°. In the same way, 4.5 g. IV, 2.9 g. Me2NCH2CH2Cl, and 1.5 g. NaNH2 give 4.3 g. crude product that after sublimation yields crystals of 1-(2-dimethylaminoethyl)-2-phenylbenzimidazole, m. 79-80.5° (forms a carbonate in air); picrate, m. 193-4°; succinate, m. 135°. In the same way 4.2 g. 2-(p-methoxyphenyl)benzimidazole, 3 g. 2-(1-piperidyl)ethyl chloride, and 1.2 g. NaNH2 give 1-[2-(1-piperidyl)ethyl]-2-(p-methoxyphenyl)benzimidazole, m. 104° (forms a carbonate in air); HCl salt, m. 248°.

IT **14339-09-4**, Benzimidazole, 2-phenyl-1-(2-piperidinoethyl)-
(and derivs.)

RN 14339-09-4 CAPLUS

CN 1H-Benzimidazole, 2-phenyl-1-[2-(1-piperidinyl)ethyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 141 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 22 Apr 2001
ACCESSION NUMBER: 1949:38899 CAPLUS
DOCUMENT NUMBER: 43:38899
ORIGINAL REFERENCE NO.: 43:7021g-i,7022a
TITLE: Histamine antagonists. V. Some 1-(2-dimethylaminoethyl)benzimidazole derivatives
AUTHOR(S): Wright, John B.
SOURCE: Journal of the American Chemical Society (1949), 71, 2035-7
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
OTHER SOURCE(S): CASREACT 43:38899

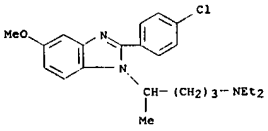
AB cf. C.A. 43, 4257e. Me2N(CH2)2NH2 (82.9 g.), 201.9 g. o-C6H4NO2, and 200 g. anhydrous AcONa, heated 8 hrs. at 120-30°, give 51% o-(2-dimethylaminoethylamino)nitrobenzene (I), red oil, b0.2 125-6°, nD25 1.6148. I (13 g.) in 50 ml. concentrated HCl, treated at 5° with 50 g. SnCl2.2H2O in 72 ml. concentrated HCl (temperature rise to 50°), gives 98% o-(2-dimethylaminoethylamino)aniline (II), m. 54-5° (m.ps. corrected). II (6.2g.) and 3 ml. anhydrous HCO2H, heated 2 hrs. on the steam bath, give 84% 1-(2-dimethylaminoethyl)benzimidazole (III), b0.2 115-20° [di-HCl salt, m. 234-6° (uncor.)]. II and Ac2O give 81% of the 2-Me derivative of III, b0.3 117° [di-HCl salt, m. 238-9.5° (uncor.)]. II and Bz2O, heated 16 hrs. at 145-50°, give 88% of the 2-Ph derivative of III, m. 72.5-4° [di-HCl salt, m. 234° (decomposition)]. II and iso-PrCHO give 33% of the 2-iso-Pr derivative of III, yellow, b1.1 136-40° [dipicrate, yellow, m. 235-6° (decomposition, uncor.)]. 1-(2-Dimethylaminoethyl)benzotriazole, b0.3 115-17°, 72% (HCl salt, m. 170.5-1.5°). These compds. possess only slight antihistaminic activity.

IT **175712-81-9**, Benzimidazole, 1-(2-dimethylaminoethyl)-2-phenyl-, dihydrochloride
(preparation of)

RN 175712-81-9 CAPLUS

CN 1H-Benzimidazole-1-ethanamine, N,N-dimethyl-2-phenyl-, dihydrochloride (9CI) (CA INDEX NAME)

L4 ANSWER 142 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 22 Apr 2001
ACCESSION NUMBER: 1947:17170 CAPLUS
DOCUMENT NUMBER: 41:17170
ORIGINAL REFERENCE NO.: 41:3456i,3457a
TITLE: 2-(p-Chlorophenyl)-1-(1-diethylamino-4-pentyl)-5-methoxybenzimidazole
AUTHOR(S): McKee, R. L.; Bost, R. W.
CORPORATE SOURCE: Univ. of North Carolina, Chapel Hill
SOURCE: Journal of the American Chemical Society (1947), 69, 471
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
OTHER SOURCE(S): CASREACT 41:17170
AB N-(1-Diethylamino-4-pentyl)-2-nitro-4-methoxyaniline (7.3 g.) in 20 cc. Et2O, reduced at room temperature over Raney Ni (2 atmospheric initial pressure), and the dried solution treated with 25 cc. C5H5N and 4.6 g. p-ClC6H4COCl and heated overnight on the steam bath, gives 52% 2-(p-chlorophenyl)-1-(1-diethylamino-4-pentyl)-5-methoxybenzimidazole, red-brown, b3 240°.
IT **412311-22-9**, Benzimidazole, 2-(p-chlorophenyl)-1-(4-diethylamino-1-methylbutyl)-5-methoxy-
(preparation of)
RN 412311-22-9 CAPLUS
CN 1H-Benzimidazole-1-butanamine, 2-(4-chlorophenyl)-N,N-diethyl-5-methoxy-δ-methyl- (9CI) (CA INDEX NAME)



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---Logging off of STN---

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Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	704.18	866.15

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-103.66	-103.66

STN INTERNATIONAL LOGOFF AT 08:42:05 ON 24 MAY 2005